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Original Department.

Cortex Peruvianæ.

By Linnæus B. Anderson, M. D., Norfolk, Va.

THE assigned zymotic, cryptogamic and bacillic origin of so large a class of diseases, and the assumed powers of Peruvian bark and its salts, in their prevention and cure, induce me to trace the therapeutical history of this potent drug, hoping to be able to assign it its proper place in the materia medica, as well as to ascertain its *modus operandi* in the human organism.

I shall only be able to give a very condensed epitome of its uses and action, as recorded by the eminent authorities I have consulted, but will indicate the authors and page, so that the correctness of my report may be verified.

Peruvian bark was known to the Indians of Peru as far back as the year 1500. An Indian drinking the water of a lake into which many of the trees had been thrown by an earthquake, was cured of ague and fever. A Spanish soldier was afterwards cured by it, and by him it was recommended to the wife of the count Cinchon, and hence its name of Cinchona. It was introduced into Spain by Dr. Villerobel in 1632.

The Spanish Jesuits recommended it so highly that Pope Innocent X recommended it in 1661 as a medicine perfectly innocuous and salutary, and a Schedula Romana, drawn up by the physician to his holiness, unfortunately recommended it to be taken "*frigone febrili incipienti*," and being used by Leopold, of Austria, with but little benefit, it fell into discredit. —(Good). It was becoming quite popular in England in 1655, but in 1658, M. Underwood, alderman of London, died while using it, and so great was the prejudice aroused against it, that Cromwell was permitted to die the same year of intermittent fever, without even using it. Thus the war for and against was kept up for many centuries, nor has it entirely

ceased as yet. But Sydenham's cool calculating judgment, close observation and wide reputation, gave it an impetus upward and onward, which no combination has been able fully to arrest.

Sydenham, pp. 42–43, says that the bark is a most valuable remedy in intermittent fevers, but that it is dangerous to give it before the system is prepared for it. When given, it should be in such a manner as to secure its cumulative effect. When it has arrested the disease, it is liable to return in a few weeks. He further says that the bark acted wonderfully well in all the fevers from 1677 to 1685, but in a fever which prevailed thereafter, though presenting all the features of a quartan, the bark failed almost entirely, though it was given early and in full quantities.

Dr. Rush appends a note on page 380, that this was probably owing to the inflammatory character of the disease and a want of preparation by bleeding, purging, emetics, etc.

Dr. Sydenham found the bark to agree only in such cases as were benefited by wine, cordials, etc. Hence he esteemed it a stimulating tonic and astringent.

Dr. Donald Monro, pp. 170, et seq.: From 1761 to 1763, while surgeon in the British army, he says: When the fever came to remit, we were obliged to continue the use of mild diaphoretics, for though the disease put on a remitting form, the bark had very little effect it stopping it unless where it changed to a regular quotidian or tertian. In 1762 the greater part of the diseases terminated in regular agues and were cured by the bark. In 1761 we tried bark in various forms in many cases, and where the remissions were clear, yet it had no effect in removing the disorder except in two cases which had assumed the tertian form. For the most part it made the patients more hot and feverish, and we had to leave it off, as it was in danger of changing the remittent into a continued fever. I always found it necessary to premise the use of the bark with a purge, or give one with it, so as to secure a few loose stools. The old gentleman says: For my own part, after considering intermittents which observed a regular type in the course of a salivation, their being so easily stopped by the bark without any sensible evacuation, their being sometimes put away by a stimulus externally applied, or by fright or sudden plunge into cold water, their return after errors in diet, and sometimes by the operation of a purge, or of bleeding and their attacking sometimes only particular parts, I must confess I am unable to form any idea either of their origin, seat or cause. He says there were many cases of continued fever, which, by bleeding, purging and emetics, were reduced to intermittents, and were readily arrested by the bark. But before giving the bark we were always careful to open well the primæ viæ, and if the patients were very weak and no time could be lost, we gave bark and rhubarb together. In England a great many cases were cured by bleeding, purging and cooling medicines, but in Germany we were compelled to resort in nearly every case to the bark. The bark seldom or never agreed in a case of fever complicated with severe local trouble, until that had been relieved by appropriate remedies.

Dr. Monro mentions cases of jaundice complicated with intermittent fever, cured by bark; also, many cases of periodical headache. He also informs us that often an active vomit would cut short the disease as effectually as the bark.

Dr. Huxham: In treating of "a dissolved and putrid state of the blood," and the use of bark in stopping gangrene, says he gave it in small doses in combination with rhubarb and elixir vitriol with the happiest effect. He also recommends it highly after proper constitutional remedies in putrid sore throat, especially in combination with elixir vitriol. In intermittent fever he always prescribes purges, vomits, cooling drinks, etc., and sometimes, when the secretions are not fully restored, he had to suspend the use of the bark; give nitre for a time, and then the bark will agree. This was in the fever of 1743, pp. 20 and 280.

Dr. Heberden: 144–148. After describing diseases which prevailed prior to 1770, and giving the results of the use of various bitter and stimulating remedies very successfully in intermittent fevers, says: I have found several of the inveterate quartans yield to a quarter of an ounce of bark, taken just before the coming on of the fit. Some fearing evil results from the use of the bark, have put off too long giving. I believe the only injury it would do, even in the midst of the fit, would be to produce nausea. But in my judgment it can never be given too soon after the fever begins to decline. The Peruvian bark has been much dreaded except in a clear and perfect intermission. But the free use which has been made of it in mortifications and other disorders, regardless of the height of the fever, shows their fears are groundless.

Pringle, Sir John, after describing the marsh and camp fever of his day—1750 to 1760, etc.,—says: The marsh fever, during the hot season, being more apt to run into double paroxysms or a continued fever, should after due preparation, be stopped in the first fair intermission, and for this purpose bark was the remedy, which he calls a specific. Though, he says with soldiers, though in large quantities there were frequent relapses. In many cases he cured severe intermittent attacks by bleeding, emetics and keeping the bowels open and observing strict dietetic rules. But when he found the distemper was not likely to turn that way, he then had recourse to the bark, and when it was most wanted it was most beneficial. As the remissions were very short, he began to give it as soon as the fever began fairly to decline; it acted best with wine. See Commentaries, pp. 183 and 186.

Fordyce, pp. 162 et seq., after stating that he has cured intermittent fevers with various bitter herbs, iron, zinc, arsenic, etc., declares that none of them are comparable with bark. When cinchona was first employed it was administered just before the coming on of the paroxysm, and sometimes during the cold fit, of the fatal results of which tradition has reported several cases. But having himself used it during the hot fit, he discovered no beneficial effects, but thought it prolonged the fit. He therefore inferred that it had no effect in taking off a fever when present, but only a power to prevent its return; if it has any effect on a fever when present it tends to prolong it and prevent a perfect remission. He considers its impression is made on the nerves and coats of the stomach and through them on the general system, thus giving tone and equalizing energy.

Senac, pp. 224, et seq.: So efficacious and innocent is Peruvian bark, that I, (says he) have heard of no well grounded complaints from my numerous patients. It not only suspends the fever for the

time, but if the system is properly prepared by evacuants, it eradicates it entirely. It is in the highest degree friendly to the stomach, promotes perspiration, acts favorably on the blood and nervous system, and is a powerful antiseptic in the primæ viæ. It is bitter, astringent and tonic, if given in certain cases or temperaments it excites heat, produces dryness of the skin, injures the stomach, oppresses the stomach, injures the lungs and extends its unfavorable influence to the blood itself. By an unskilful use of it, simple intermittents may be changed into continued fevers, and often fevers may be arrested while vitiated matters are left in the system to produce serious troubles in vital organs. Prepare the system for it and then it acts benignly.

London Practice: If the fever assumes a distinct intermittent form, the paroxysms are regular, passing through the cold, hot and sweating stages, and the intermission is attended with an even, steady, soft pulse, and a well charged urine, we may boldly venture to throw in the bark. But otherwise it is of great consequence to be wary in the exhibition of it, as it, if not well-timed might be productive of very serious consequences. When properly administered it seldom fails to stop the return of the fevers in a short time, then in order to prevent a relapse, the medicine should be continued for some days, the patient avoiding night air, and food that is cold flatulent and watery, and no purgative or laxative should be given for a long time. pp. 61 to 70.

Johnson on Climate, pp. 326–327: In regard to the fevers of Sicily he says: The use of bark, unless the bowels have been well opened, the febrile excitement subdued, the hepatic secretion restored by mercurials and a good remission obtained, serves only to exasperate the local disease and to aggravate every symptom of the succeeding paroxysm.

Jackson on fevers in British army in the West Indies, p. 250: "When the disease is without complication, the more relaxed the habit, and the greater the general mobility of the locomotive power, the more certain is the repressive effect of the bark. It is then fair to conclude that the bark conveys to the fibre some imperceptible condition whereby the impression of the cause of intermittent fever is resisted. Bark gives firmness and elasticity to the muscular fibre, force and energy to the locomotor power, imparting to the habit, vigor and elasticity. It will only arrest the disease temporarily when the habit under which it is given is not a suitable one, but even under such circumstances it but seldom does harm.

Moseley on Tropical Diseases, pp. 192–193: Bark, in unskillful hands, even in intermittents in the West Indies, should not be long persisted in, without the frequent use of calomel. If the fever be a recent one, and has a tendency to a remittent, the premature use of the bark impedes the secretions, causes stricture in the capillary vessels, and fixes immovable obstructions in the brain. I am surprised that Dr. Lind should advise it even in the exacerbation of continued fevers. Such practice is repugnant to reason and I know from experience that fatal effects have often resulted from it. To secure its good effects, obstructions must be removed, secretions restored, inflammations subdued, and a good remission procured. Bark can be given earlier, in the cool and hence less bilious seasons, than in hot weather.

Lind on Hot Climates, pp. 291, et seq: During the intermission of the fever, whether obtained from the medicines prescribed, or from the natural course of the disease, the bark should be given. In the proper administration of the bark the cure of agues may be said entirely to consist. The preparation of the body previous to the administration of the bark is not considerable. It is sufficient to cleanse the stomach and alimentary canal by an emetic and purge. Many disorders attributed to the bark, are the effects of the disease. When the ague is stopped by the bark in the first or second fit, no evils follow, but when it could not be used until late or not at all various disorders supervened. Of between four and five hundred patients under my care in 1765, I lost only two, with intermittent fever, neither of whom took the bark. Whatever the complications, either pulmonary, functional, intestinal, etc., I embrace the first remission to give the bark, so as to arrest the fever and remove the complication.

Cleghorn on Diseases of Minorca; pp. 120, et seq.: Dr. Cleghorn urges the earliest possible use of the bark in intermittent and remittent fevers. When there are no complications, and a favorable remission presents itself at the beginning, he urges the use of the bark without previous preparation. If there be retained secretions, disorders of stomach, bowels or other organs, he addresses his remedies to them with all possible expedition, embracing the first intermission to throw in the bark. And if not called in till late in the disease, and severe local trouble has arisen, he conjoins the bark with aperients, saline medicine or cordials, as the case may require, and thus secures a more perfect intermission. He attributes the evil consequences following the use of the bark to the disease and not the remedy. Hence the more formidable the symptoms and the more alarming the complication, the more speedily and boldly he gives the bark. While Dr. Cleghorn is a great enthusiast in the use of the bark, and claims that he is sustained in his practice by the most distinguised physicians of England, France, Germany, Denmark, Spain and Italy, he unfortunately has omitted to give us his views of its *modus operandi*.

Wilson (A. P. Wilson, Philip) on Fevers; pp. 97, et seq.: "Of all the medicines used in intermittent fevers none have been so generally employed as Peruvian bark. This medicine is mentioned by authors under various names, viz., cinchona, chinachina, kina kina, kinkina, quina quina, quinquina, pulv. comitissæ, gentian Indica, antiquartan Peruvianum, jesuiticas pulvis, Cardinal De Leigo's powder, etc. It is an astringent bitter, with some aromatic flavor; to none of these qualities, however, can its powers be attributed, since no combination of bitters, astringents and aromatics is found equal to it. It appears probable that in the cure of intermittents this medicine acts chiefly by its effects on the stomach and intestines, and consequently our endeavors should be directed to have as much in the primæ viæ as possible at the time the paroxysm is expected."

Hence he recommends when the apyrexia is short, to begin as soon as the fever declines and give it boldly till the next fit comes on. But if it be long, then wait till six hours before the expected recurrence and give it in large doses, as he thinks a few large doses given just before the time of the fit are more apt to prevent it than many small ones continued through the intermission.

Whytt's Works; pp. 635 and 636: The bark is

more strengthening and less heating than any of the bitters. It may be taken for a long time without any ill effects. In a comp. tr. I have used it for many months with a grateful sensation in my stomach, accompanied with better spirits than I had at any time during the day, or than I found from drinking wine, even when I used it freely. In tertian intermittent, attended with a cough and spitting, after the use of a vomit and some pectorals, I have prescribed the bark in the usual doses without the breast being in any way hurt by it. I have had repeated experience with it in curing hoarseness following the measles, unattended with fever or difficulty of breathing. In chincough, when given early and before any obstructions are formed in the lungs, it is one of our best remedies. The success of the bark in resolving indolent glandular swellings, may show that it is not possessed of any considerable obstructing quality.

Cullen's Practice of Medicine, pp. 78, et seq.: "As in many cases the effect of the bark may be seen soon after it enters the stomach and before it can be taken into the circulation, we may conclude that its effects do not arise from its operating on the fluids, and must, therefore, depend upon its operating on the nerves of the stomach, and being thereby communicated to the rest of the nervous system. This operation seems to be a tonic power, the bark being a remedy in many cases of debility, particularly in gangrene. And as the recurrence of the paroxysms of intermittent fevers depend upon a recurrence of atony, so probably the bark, by its tonic power, prevents the recurrence of the paroxysms; and this is greatly confirmed by observing that many other tonic medicines assume the same purpose."

He deprecates its use, except in distinct remissions of continued fevers, where there is no inflammation, and in the stages of great debility, etc.

Brown's Institutes, pp. 355–356: When intermittent fevers are treated on the debilitating plan, they persevere in returning. But when treated by Peruvian bark, and still more certainly, by the forms of wine and diffusible stimulants, and when that cure is persisted in till the strength is quite confirmed, they never return. In all the southern regions, and even in England, the Peruvian bark, when the whole cure is entrusted to it, often fails, and they are not removed but by diffusible stimulants.

Buchan, pp. 154–155: The only medicine that can be depended on for thoroughly curing intermittent fever is Peruvian bark; it may always be used with safety. And I can honestly declare, that in all my practice, I never knew it to fail, when combined with the medicines above mentioned and duly persisted in. In obstinate cases, or when the patient is old or leucophlegmatic, the season rainy, or the situation damp, it will be necessary to combine with the bark snake-root, ginger, or some other diffusible stimulus or warm aromatic. When the symptoms are of an inflammatory nature salt of wormwood or salt of tartar may be added to the bark.

Medical Extracts (a work published in London during the last century, comprising five octavo volumes, and indicating great learning and research, under the article "Fever as it prevailed in England in 1765") says: "The universality of this fever, together with its uncommon symptoms, were at first alarming; but when the lancet was withheld and the bark freely given in large doses, few died."

The great Dr. Willis, speaking of the bark, says: When taken after the wonted manner it prevents the next paroxysm; however, it is often wont to return within twenty or thirty days, when the bark being again given, the disease is for a time again deferred, and by this means I have known the enemy detained in his precincts the whole winter, and by changes of time and season to vanish in the spring. It causes no sort of evacuation and takes away the fit almost from all. Modern physicians perceive, that though like other astringents it braces the fibres and acts as a stimulus, yet the effect of this is chiefly by giving an increased power in the blood to imbibe oxygen, whereby the fever is cured.

Murray's Materia Medica, pp. 106 and 107: "The effects of Peruvian bark are those of a powerful and permanent tonic, so slow in its operation that its stimulating property is scarcely perceptible by any alteration in the state of the pulse, or the temperature of the body. It is one of those medicines the efficacy of which in removing disease is much greater than could be expected *a priori* from its effects on the system in a healthy state. In remittent fever it is given with equal freedom, though the remission of the fever may be obscured. In intermittent fever it may be given with safety during the hot fit, but it is then more apt to excite nausea. In those forms of continued fever which are connected with debility, cynanchia maligna, confluent small-pox, etc., it is regarded as one of the most valuable remedies. It may be prejudicial in those fevers where the brain or its membranes are inflamed, or where there is much irritation. In acute rheumatism, after blood-letting, it is a valuable medicine. In erysipelas, gangrene, suppuration, venereal ulceration, chronic debility, dyspepsia, hypochondria, paralysis, rickets, scrofula, dropsy, epilepsy, chorea and hysteria, it is administered as a powerful and permanent tonic, etc."

Edinburgh Materia Medica (1791) pp. 252–253: "While the strongest and most permanent stimuli have by no means the same effect of the bark in the cure of disease, the bark itself shows hardly any stimulant power either from its action on the stomach or other sensible parts to which it is applied. From its action on dead animal fibres there can be no doubt of its being a powerful astringent, and from its good effect in certain cases of disease there is reason to believe it is a still more powerful tonic. It has a powerful effect in resisting the septic process to which animal substances are naturally subjected, as seen not only in dead animal substances, but even in fluids detached from the body. Although it be admitted that Peruvian bark acts powerfully as an astringent, as a tonic and as an antiseptic, yet these principles will by no means explain all the effects derived from it in the cure of diseases. And accordingly, no artificial combination can produce the good results effected by the bark. The author then gives a list of diseases in which it is specially applicable, being just that given by Murray above.

Dr. Barnwell, pp. 308–309: The best method of giving bark is to begin with as large doses as the stomach will bear. For when the body is for some time habituated to a periodical disease, it will return after the cause is taken away, keeping to its usual time. This is the case with ague as well as several other diseases, so that the cure must put the system out of this habit, and hence they are often relieved by emetics, and the bark itself operates by fortifying

the system against the periodical attacks of the disease.

Dr. Edward Thomas' Practice (Salisbury, England) pp. 9, 20, 32: "When we obtain an intermission, the Peruvian bark is to be given during the interval in large doses. Five or six ounces given in a few days will probably effect more good than as many pounds given during as many weeks. When the intermissions during the paroxysms are long, we should delay giving the bark until within eight hours or so of the accession of the cold fit. By neglecting to give the cinchona in the West Indies and other warm climates upon the first remission, the fever is apt to assume a continued form. Hence, on the first remission, if the interval is likely to be short, half an ounce should be given at once, etc. In the continued fevers of warm countries we should by no means wait for a complete crisis, in order to administer the bark. In these it will be prudent to embrace even the least remission, let it be ever so imperfect, or of short duration, as likewise to give it in as large doses as the stomach will bear, and to repeat these frequently. As a tonic it has acquired the greatest celebrity in febrile diseases, and is therefore preferred to all others.

Mason Good, p. 86, et seq.: Dr. Good, probably the most elegant and classical writer who ever wielded a medical pen, has given the fullest and most interesting history of the Peruvian bark I have seen. The results of his investigations are embraced in a few sentences: "To all these (proposed substitutes for Peruvian bark) a common remark may be applied, that where they have been of real service, it has generally, though not in every instance, seemed to arise from their uniting the two qualities of a bitter and an astringent, and that they have rarely answered where there has been only one of the qualities to depend upon. Thus tormentilla, one of the most powerful vegetable astringents we possess, and gentain, one of our most powerful vegetable bitters, succeed so rarely alone, that no dependence is to be placed upon them; but when given in combination, they almost rival the virtue of the cinchona, and have occasionally succeeded where the latter has failed. There is, however, a principle, independent of bitterness and astringency, that seems absolutely necessary to enter into conjunction with these, in order to give efficacy to any medicine employed as a febrifuge in intermittent fevers, and a principle that has hitherto eluded all research, for if the principle depended on the intensity of the bitters and astringent quality alone, galls, oak bark and mahogany bark ought to succeed better, not only than are unions of tormentilla and gentian, or chamomile and alum, which have also been found very serviceable, but than cinchona itself, which everyone knows they do not do; although when Peruvian bark cannot be obtained, they become very desirable substitutes."

Broussais, 2 vol., pp. 96, et seq.: This author condemns the use of bark in all fevers, no matter what their type, unless there is the clearest evidence that the secretions are properly performed and no trace of local inflammation can be detected. For, says he, I have often seen an intermittent changed by the use of bark to a continued fever and violent inflammatory complications excited. Hence he recommends leeching, fomentations, diluents, mucilages, and when the intermissions are perfect, and the phlogosis dissipated, the bark may be used.

John Eberle, Mat. Med., Art. Cinchona: Sums up the opinion of previous writers, and concludes that Peruvian bark is a valuable remedy in all periodical, adynamic and non-inflammatory diseases, attended with debility; that a majority of authors premise its use with bleeding, purging, vomiting, or combine with it certain aperient medicines, as the case may be. He classes it with tonics, at the head of the list of which he places it.

We have now traced the medical history of cinchona bark from its discovery to the period when the triumphs of chemistry extracted from its crude mass the powerful and valuable salt, quinine. We have followed the authors as nearly in their chronological order as possible, and through a line of the most eminent, practical and reliable of which our library afforded an opportunity. I had intended from the vast array of observations and facts here collected, to draw such legitimate therapeutical deductions as were most prominently presented. But this article, condensed as it has been, is already much longer than I wished it to be, and you have space to spare for, hence I shall in another number follow up the same mode of investigation with regard to the salts of quinine, and from the whole draw my conclusions as to the place they should occupy in the classification of the materia medica.

Medical Clinic of the Southwestern Hospital of the City of Philadelphia.

SERVICE OF F. E. STEWART, M. D., Ph. G.

Corn Silk (Stigmata Maidis) in a Case of Cirrhosis of the Liver and Kidney.—The following case, taken from the case-book of the hospital, seems to furnish marked evidence of the diuretic properties of the fluid extract of corn silk:

Mr. J. W., æt. 77; white; born in Scotland. Has been a sailor since 1815, serving much of the time in the United States navy. His constitution and general health have always been good, and he has no hereditary predisposition to disease that he is aware of. His habits and mode of life have been those characteristic of his profession—exposure to wind and weather, frequently wet to the skin, obliged to endure hardship and exposure. For many years he has been in the habit of taking his daily allowance of grog, and of late years the habit of using stimulants has grown upon him until he consumes about a pint of whisky in the twenty-four hours. Previous to his present complaint he has suffered with yellow fever, having had an attack of this disease in 1841, when in South America. Seven years ago he was under treatment for a bad diarrhœa. The complaint for which he now comes to us is a bloody diarrhœa. About two months ago he had an attack of diarrhœa, but his stools were not attended with blood. The discharges at this time were slimy. After running on for some time, it was finally checked by astringents. Two weeks ago the diarrhœa returned, and this time he noticed that the stools were bloody. The blood is black and tarry, and mixed with a slimy offensive discharge of fecal matter. He has passed as much as a gill of blood at one time. In addition he is troubled with dyspeptic symptoms. His stomach is sour, and he has acid eructations, tympanitis and belching of wind, and vomiting of food.

Although not confined to his bed, he is very weak,

and his general health seems to be failing rapidly. He says that last summer he was suddenly taken sick in the street, became weak in the knees, and that since then he has been unable to walk but little. Owing to the loss of his sight by disease, he has been pentioned by the government. There is no syphilis to be found in his history. He has had gonorrhœa.

At the present time he presents the following appearance: He is pale, his features pinched, and he complains of a severe pain in his back. This pain has troubled him for about three months, and is very severe. His appetite is poor. He is thirsty, and drinks a great deal of water, whisky and porter. As for the bowels, he has two stools daily, diarrhœic and with more or less blood. The kidneys refuse to perform their function with normal vigor. The urine is scanty, high colored, and loaded with urates. As for the amount of urine, he passes about six ounces daily. It has an alkaline reaction; s. g. 1.025; no albumen, but shows a trace of sugar. Some years ago he had piles, but they have not troubled him since.

By a physical examination we find that his heart is weak; his lungs are resonant; the abdomen is distended with wind, making it difficult to examine the organs contained therein. The liver dullness, however, occupies less than the normal space.

Cirrhosis of the kidney will account for the symptoms, and on this diagnosis the treatment has been based.

Treatment.—This has been directed toward the symptoms. In the first place, he has been placed on a diuretic, for the purpose of increasing, if possible, the secretion of the kidneys, and thus forestalling danger of uræmic poisoning. For this purpose a drug was chosen which has obtained recent note through the investigations of Dr. Dassure, of France, and published in the l' Union Medicale. This gentleman reports cases in which it was used by him where the urine exhibited a strong ammoniacal odor, with heavy morbid deposits, which were speedily relieved by its administration. Mr. W. was placed on half-drachm doses of the fluid extract, three times a day, before meals.

For his dyspeptic symptoms a mixture was given which has become a favorite at the hospital. It consists of soda bicarb., grs. v, tr. nux vomica, gtts. v, tr. capsicum, gtts. 2½, cascara cordial (P., D & Co.), q. s. to make one drachm. Of this mixture a teaspoonful was given night and morning at first, though afterwards the dose was increased to teaspoonful three times a day, before meals.

As a nutrient, and to supply his rapidly wasting tissues with material for repair, desiccated blood was ordered. Of this the dose employed was a tablespoonful of the following mixture: Desiccated blood, six drachms, water, four fluidounces, glycerin and brandy, of each a fluidounce. This was ordered to be given three times a day.

The patient was also directed to take plenty of good food, especially of meat, eggs and milk.

Nov. 3, 1882.—Hemorrhage from bowels stopped. Has taken no medicine. Is constipated. Amount of urine, eight fluidounces.

Nov. 4.—Has taken three doses of corn silk. The urine now has an acid reaction. Amount passed during the past 24 hours, 12 fluidouncces. S. g. 1.025, and a heavy deposit of urates. As yet he has not taken the other medicine ordered; has had no movement of the bowels; dyspeptic symptoms persist, and he is very weak.

Nov. 6.—Followed out instructions, and has taken the corn silk and dyspepsia mixture regularly, but not the desiccated blood. Urine 12 fluidounces, acid. No movement of the bowels as yet. Thinks he is improving, and sleeps better.

Nov. 7.—Had a free movement of the bowels this morning, accompanied by about a gill of blood. Has taken only one dose of the blood, and is very pale and feeble. His heart is very weak, and the pain in the back continues severe. Ordered three drops fluid extract digitalis, for heart, to be taken three times daily. Urine 12 ounces. Increased corn silk to drachm doses.

Nov. 8.—Has taken all the medicine ordered. Pain in back better. Urine 14 fluidounces. S. g. 1.025; deposits urates; yields slight reaction to test for bile; trace of sugar; no albumen. Pain in back still continues; ordered mustard plaster.

Nov. 9.—Has had free movement of bowels; slightly mushy in consistency, and slightly tinged with blood. Urine 10 fluidounces. Pain in back better. He says that he has for a long time had much trouble in passing his water, frequently remaining for some minutes with the vessel in his hand before succeeding in the attempts to void it. This symptom has entirely disappeared.

Nov. 10.—Urine 16 fluidounces. S. g. 1.025; feebly acid. Pain in back worse.

Nov. 11.—Urine 14 fluidounces; S. g. 1.024; acid. Pain in the back still continues. Yesterday in attempting to sit in his chair he fell to the floor and is in bed to-day from the jar received by it. On the whole, however, he seems much better. He has had a free movement of the bowels accompanied by about two fluidounces of blood. His appetite is better; his tongue has cleared up, and his face is not so pale. Pulse 68, temperature normal.

Nov. 12.—Out of bed. Urine one pint; back better.

Nov. 13.—Urine one pint. Bowels moved freely attended with about eight fluidounces of blood, this time of a bright red color, and forming a clot as soon as expelled. Appetite good but pain in back still continues. This pain which has attended the case from the beginning seems to be neuralgic in character. It is increased on pressure, and there is a spot of tenderness over one of the lumbar vertebræ. Counter-irritation relieves it some but the relief is not permanent. Dry cups were now applied, and the relief from them was at once apparent.

Nov. 14.—Urine 14 ounces. Back much improved.

Nov. 15.—Urine one pint. Back not so well.

Nov. 16.—Urine one pint, back worse.

Nov. 17.—Urine 18 fluidounces. S. g. 1.015; acid reaction. No trace of sugar; no albumen; smaller deposits of urates; slight trace of bile. Appetite concontinues to improve. Stopped all medicine except the blood and dyspepsia mixture, which was now ordered in teaspoonful doses three times daily in divided doses—half teaspoonful before, and half teaspoonful after meals. Pain in back about the same. For this pain was now prescribed menthol 1 drachm, bromide of ethyl, 1 fluidrachm; mix. To be rubbed on the back with a little sweet oil.

Nov. 18.—Urine 14 fluidounces.

Nov. 19.—Urine 12 fluidounces.

Nov. 20.—Urine 12 fluidounces. Had a movement of the bowels Saturday the 18th, free, and with about a gill of black tarry blood. On Sunday another movement but no blood. A most marked improvement in his back has taken place. It no longer pains him when at rest, and only slightly when he moves around.

Nov. 23.—Since the discontinuance of the corn silk he has only passed 18 fluidounces of urine, or about 9 ounces in the 24 hours.

Nov. 24.—Mr. W. has passed 18 ounces of urine during the past 24 hours. He has taken 4 teaspoonfuls of the corn silk. Accordingly the amount of urine passed in the 24 hours has been doubled by the corn silk. It is very evident in this case that it was the drug that produced the effect. Again, the effect on the general condition of the patient is most marked. He becomes brighter, is cheerful,—a very pleasant change from the gloomy state of mind that characterizes him in the ordinary condition of the case.

Placed him again on the corn silk in 3 j doses three times a day.

The case is still under treatment.

The effect of the corn silk in this case seems to appoint it a place among the diuretics, and to bear out the good opinion formed of it. Here, however, the deposit has not been stopped as in the cases of Dr. D., though the urine changed from alkaline to acid and presented in every way a better appearance. The case will be watched for further report.

Ophthalmic Memoranda, Refraction.

By H. F. Hansell, A. M., M. D., Philadelphia, Pa.

ONE of the fundamental rules for the successful practice of medicine, as well as for the accomplishment of any aim, is thoroughness. In the establishing of a diagnosis of an obscure disease no symptom is insignificant, and a thorough and complete investigation of all organs is essential. This rule is most forcibly illustrated in the two following cases taken from my private note-book, and the great importance of a too much neglected branch of medicine —refraction—well shown. Refraction is left to the specialist, and the general practitioner is as a rule entirely ignorant of the subject. Every physician should be sufficiently versed in refraction to be able to at least consider it in making his diagnosis of obscure head troubles and to exclude it when necessary. It is a subject which every year is securing more attention and fully merits it.

Case 1.—C. H. P., æt. 25; broker; consulted me October 5th. In June, about one month after his marriage, while riding in cars, exposed the left side of his face to a draught of air by sitting by an open window. The next morning there was developed a typical case of Bell's palsy—mouth drawn to right side, tongue protruded to the left, folds of left side of face obliterated, and impossibility of closing left eye, etc. Associated with it was a loss of accommodation, as was shown by the patient's being unable to use that left eye in reading or any near work. The power of accommodation resides in the ciliary muscle. This muscle consists of circular and radiating fibres, and is situated at the periphery of the capsule of the lens, between the anterior edge of the choroid and the periphery of the iris. Accommodation is supposed to be produced by the contraction of the circular fibres, causing relaxation of the capsule and thus allowing the lens, of its own elasticity, to expand, *i. e.*, increase its antero-posterior diameter and this in turn increases the refracting power of the eye and adapts it to diverging rays. Uuder a physician's care all the symptoms of Bell's palsy disappeared in three weeks. The eye trouble, however, remained and was the source of inconvenience and anxiety. He was unable to use it for near objects. Reading and writing were especially annoying and were best accomplished by closing the left eye. As time went on he noticed no improvement; indeed, he became worse, for in addition to his already existing difficulty arose a complication on the part of the right—the hitherto good eye. Continued working over his books became impossible. He must take intervals of rest in which he would confine his attention to distant objects, and at the close of the day would finish his business with a severe headache and prostration. Examination of his eyes revealed the following condition: Vision $\frac{R}{L}\ \frac{20}{}\ |\ \frac{XX}{c}$ incorrectly, or right nearly normal, and left only 1-5 of normal. Under duboisia v. became much reduced $\frac{R\ 20\text{-}L}{L\ 12\ cc}$ or right almost 1-3, left 1-17 of normal. Careful and repeated examination with test lenses resulted in restoring to the patient the full activity of vision $\left(\frac{R}{L}\ |\ \frac{20}{XX}\right)$. His prescription was $\frac{R\ x\ .75\ \bigcirc\ x}{L\ x\ 3.5}$ .75c 490 deg. Hypermetropia and astigmatism in the right, simple hypermetropia, but of much higher degree, in left. This case, then, originally one of Bell's palsy, complicated by paralysis of ciliary muscle—symptoms which would indicate a central lesion and cause anxiety both to the physician and patient—resulted in a perfect cure by the simplest means. Facial paralysis by ordinary treatment, and eye by adjusting before it a lens, correcting its high optical defect and relieving the strained and worn out ciliary muscle of the extra duty that had been imposed upon it.

Case 2.—Mr. S., lieutenant in the U. S. Navy, while on duty on board his ship off the coast of Peru, one afternoon, about a year ago, noticed in drinking a glass of water an unusual salty taste. Thinking the water impure ordered another glass. Noticed the same taste. Passed it to a brother officer, who declared the water tasted as usual. That night while walking on the damp deck had for the first time a pricking sensation, "pins and needles," in left leg and arm, particularly the latter. Next morning the left side of face was completely paralyzed and vision of left eye much reduced. After a week's rest in bed the facial paralysis had nearly recovered, though the vision remained unchanged. He was entirely incapable of reading—even large print was illegible and appeared as a grey blur—and for distance his sight was greatly impaired. Since this attack eight months have elapsed. The facial paralysis has entirely recovered and is replaced by involuntary contractions of some of the muscles of the right side of face, especially those around the mouth. The affection of the legs and arms has persisted, though with less severity. He has suffered at intervals of three or four weeks from violent headache, pain starting in left eye, shooting through to occiput and back of neck, lasting 24 to 36 hours and yielding only to hypodermics of morphia $\sqrt{\frac{R\ 20\ xx.}{L\ c.}}$. His sight in the right eye had remained good throughout, both for distance and for near, but

that of the left, though the other symptoms—tingling of legs and arms, facial paralysis—had all improved, had remained unchanged. This was the source of great anxiety to the patient. He feared his left eye was permanently impaired and would eventually be entirely lost, and indeed his fears would seem to have been well founded; paroxysmal pain of great intensity and function almost gone. I was happy in being able to remove his fears and restore the vision to the normal acuity by correcting the optical defect. This proved to be a high degree of hypermetropia with a slight astigmatism (L. E. R. $+4.5 \supset +25^{c}$ 4 180°). The ophthalmoscope showed that there was no disease of the fundus, not even a hyperæmia of the retina and also the non-existence of opacity in any of the media. The left eye then was perfectly free from all signs of past or present inflammation. In other words, it was a normal eye, but it was not an emmetropic eye, and there is an important distinction between the two. A normal eye is not necessarily an emmetropic one, nor is an emmetropic eye necessarily a normal one. Now, the question suggests itself: "If there was no inflammation why was the vision so suddenly reduced, the power of reading taken away, and why, when the paralysis of the muscles of the face recurred was not the function restored to the eye?" Questions easily answered when the form of the eye and condition of refraction are known. With the Bell's palsy was associated a paralysis of the ciliary muscle. That accounts for the sudden loss of power of reading. The paralysis of the ciliary muscle with the high degree of H accounts also for the diminished acuity of distant vision. A hypermetropic eye uses accommodation for distance as well as for near. When the eye is at rest (*i. e.*, relaxed ciliary muscle) parallel rays of light are not sufficiently refracted by the media. The focus lies behind the retina. Now a contraction of the ciliary muscle means, as before shown, an increase in the antero post. diam. of the lens. When the accommodation is very strong or when the hyp. is not very high, the effort of the accommodation is sufficient to bring parallel rays to a focus in the retina; in other words, to overcome the hypermetropia. Now, what is the effect of a loss of accommodation in high H? Exactly what we have in our case; impairment of distant vision and total abolishment of all ability for close work. In the course of a few weeks the paralyses recover, the muscles of the face resume their normal appearance, but the bad vision remains. Although a normal amount of power is restored to the ciliary muscle the patient cannot read. A return of the power of seeing near at hand, for him means a return of more than normal accommodation. He must exercise his accommodation in order that parallel rays of light are focused in his retina, *i. e.*, distant objects clearly seen, and must intensify the effect in order that converging rays may be brought to a focus in the retina, *i. e.*, distinct vision for near objects. This he cannot do. When, however, the proper glass is placed before the eye and the eye made emmetropic, the power of bringing converging rays to a focus on the retina returns and the patient is able to read. The accommodation which he formerly employed for distant objects is rendered now no longer necessary because the glass supplies the deficiency of refraction and instead is employed on near objects.

The similarity of these two cases is striking. In both the subjects were young men, apparently hearty and well, but really subject to influences which induce nervous prostration. The first up to the time of his marriage having abstained absolutely from sexual intercourse, and the second living in a climate in which nervous diseases are more than usually common; in both the left eye was the affected one; the hypermetropia was higher than in the right. The facial paralysis recovered in the usual time under ordinary treatment. It is impossible to locate the lesion in either, or indeed, even to assert that there was a lesion, in the ordinary use of the word. Anatomically, as far as we know, there is no direct connection between the seventh and the third nerve, nor is there any particular reason why a paralysis of these two nerves should be associated to the exclusion of the other motor nerves of the face. The predisposing cause was nervous exhaustion in both. The exciting cause in the first was exposure to draughts of air on left side of face and in the second exposure to the weather on the wet deck of the ship. The left eye was affected because that side of face was paralyzed and because the left was the weaker eye and was subject to greater strain.

Peculiarities of Asthma and its Treatment.

By Charles H. Miller, M. D., Peabody, Kansas.

ANY observing physician at all acquainted with asthma, as met with in the ordinary rounds of practice, has not failed to notice its singular and unaccountable vagaries, both in treatment and effect. Every case seems to embody a principle in itself wholly distinct from its neighbor. It is the only disease we are called upon to treat which general principles of treatment failed to reach. The special causation may be the same in any given number of cases, yet the means of benefit are almost universally, wholly and hopelessly dissimilar in each. Indeed so whimsical is this affection that it has been called by the late Dr. Geo. B. Wood, hysteria of the lungs!* Every successful means, therefore, brought to bear upon this affection, whether coming from professional sources or otherwise, is of peculiar interest to us all.

Two exceedingly obstinate cases of the spasmodic form lately came to my notice in which every generally known method of treatment failed to give any relief whatever. One of these, the wife of my old friend, Dr. J. M. Miller, (no relation) of this city, has been an object of experimentation for upwards of fifteen years. The doctor, having his case at home and close to heart, made every human effort to give his wife relief, even to coming so far as Kansas in search of the elixir. Mrs. Miller is a small, spare woman, about forty years of age, of dark complexion, and of an exceedingly nervous temperament. She has been a chronic sufferer from asthma, as stated, for many years and has been literally fed on such articles as lobelia, musk, ipecacuanha, quinia, Hoffmann's anodyne, stramonium, conium, cannabis Indica, opium, and the iodides and bromides of potassium. Even the later remedies, quebracho and grindelia robusta, have been given time and again, generously, with no benefit whatever. Nearly a year ago, however, the

*Practice of Medicine, vol. 1, fifth edition, 1858, p. 884.

doctor stumbled upon the fluid extract of hyoscyamus, and what all else failed to do, this accomplished.

These attacks, coming upon her, as they do, almost exclusively in winter, from the inhalation of coal gas, as generated in heating or cooking, and most frequently in the evening, ten or fifteen drops of the fluid extract, every hour, in a little water, soon suffices to put her to sleep, thus aborting the threatened paroxysm. Any subsequent uneasiness during the night is quieted by similar doses. Morphia, hydrate of chloral, chloroform and potassium have been repeatedly tried for the same purpose, but have failed.

Hyoscyamus, in this connection, is not generally given in our text-books on this affection, and is not, therefore, generally known to the profession as a remedy in asthma. The only place I have been able to find it mentioned is in the small work by Henry Hartshorne, M. D., the "Essentials of the Principles and Practice of Medicine," a hand-book for students and practitioners, published by Henry C. Lea's, Son & Co., Philadelphia. Perhaps it would be well to look the article up more closely. It certainly should be of some interest to the profession at large to have the drug strictly inquired into in this connection, and reports made of its employment, favorable or otherwise.

The other case, equally obstinate and nearly as long in standing, baffled professional skill for many years, and was only brought to bay at last by the suggestion of a traveling salesman. E. H. U., also a resident of this city, is a saddler by vocation, twenty-three or twenty-four years of age, and nearly a life-long sufferer from this affection. After having been experimented on by nearly as many physicians as remedies, quebracho and grindelia robusta being among the number, he can find relief only, when such paroxysms seize him, by a combination of the oil of peppermint and alcohol, the prescription of a traveling salesman similarly afflicted. This combination, as employed by him, consists of one part of the oil of peppermint to three of alcohol, the throat, externally, being thoroughly bathed by this preparation, and the whole head, as well as the throat, being immediately and closely enveloped in a silk handkerchief, in order to facilitate inhalation. This gives him the desired relief shortly, which no other remedy can. Hyoscyamus, in this case, has been of no benefit whatever, and the preparation as employed above, is wholly useless in the case of Mrs. Miller. Such are the vagaries, the phantasies and caprices of this affection—asthma.

Peculiarities of climate and of localities have also long been objects of interest in this connection, and often of amusement. There is a certain grim humor in the time, manner and place of imprisonment which individuals thus afflicted frequently undergo. As it is well known, the Rev. Henry Ward Beecher is compelled to flee to the White Mountains every year about the first of August, in order to escape the dreadful burden of his life in Brooklyn A friend of mine, formerly a traveling salesman, could find no relief at any time outside of the city limits of Pueblo, Colorado where he was eventually compelled to reside in order to enjoy immunity from this dreadful affection. Once without the limits of that city, he was sure to suffer a recurrence of the malady.

Nearly all of us, no doubt, know of cases more singular still, in which the differences of a mile or a fence make all the difference in the world in the character of this most singular of singular diseases; in which, in fact, relief may follow a passage from a highland to a lowland, or *vice versa*, from cellar to garret, from the front to rear end of the same building, and occasionally from one room to another. Under such circumstances, therefore, hysteria of the lungs, though somewhat curious, is not so inappropriate as may first appear.

Piscidin—The Active Principle of Jamaica Dogwood (Piscidia Erythrina).

By Edward Hart, Ph. D., Easton Pa.*

I AM indebted to the enterprising firm of Parke, Davis & Co., of Detroit, for the material used in this investigation. The search for the active principle was undertaken at the request of Dr. Isaac Ott, of Easton, who has studied its physiological action.†

After many fruitless trials I succeeded in separating it as follows: The contents of a pound bottle were poured into a flask in which 30 grammes of quicklime had been slaked with enough water to form a stiff paste. The fluid was intimately mixed with the quicklime by shaking, allowed to stand half an hour in a warm place, filtered and pressed. Water was added to the filtrate until it became slightly turbid. After standing two or three days the piscidia separates out on the sides and bottom of the flask. Further dilution gives a second crop of crystals. The impure piscidin obtained in this way is freed from resinous substance which accompanies it by recrystallization from alcohol. After nearly all the piscidia has been precipitated by water, a resinous substance containing a small quantity of piscidin is precipitated, from which I have been unable to find a method for separating it completely. I have obtained about eight grains piscidin from each pound bottle of the fluid extract. Probably the total quantity contained in it does not exceed twice this amount. Thus far this is the only substance obtained from the fluid extract having poisonous properties.

Piscidin, $C_{29}H_{24}O_8$, after many recrystallizations from alcohol, is obtained in the form of small nearly colorless crystals which appear under the microscope to consist of four or six sided presms. It melts at 192°. Piscidin is insoluble in water, slightly soluble in cold, much more so in hot alcohol, only slightly soluble in ether, easily soluble in benzine and chloroform. It dissolves in strong hot hydrochloric acid and is reprecipitated apparently unchanged on adding water. It dissolves in cold concentrated sulphuric acid and separates again by addition of water, but this treatment appears to change its properties, as it no longer dissolves easily in alcohol. Boiling with dilute and strong acid causes no separation of sugar. An alcoholic solution of lead acetate gives no precipitate. The alcoholic solution is neutral to litmus paper. The analysis resulted as follows:

(1). 1780 gms. gave .4555 gms. CO_2 and .0939 H_2O = 69.78% C and 5.86% H.

(2). .2323 gms. gave .5942 gms. CO_2 and .1077 H_2O = 69.76% C and 5.15% H.

(3). .1473 gms. gave .3765 gms. CO_2 and .0714 H_2O = 69.69% C and 5.38% H.

*Chemical Department, Lafayette College.

†Detroit Lancet, June, 1880, and Archives of Medicine, February, 1881.

These combustions were made in a stream of oxygen. On examination the oxygen used was found to contain hydrogen. Another combustion with pure oxygen in which the H_2O only was collected gave:

(4). .3660 gms. gave .1642 gms. H_2O = 4.98% H.

	CALCULATED.		FOUND.			
			(1)	(2)	(3)	(4)
C_{29}	348	69.60	69.78	69.76	69.69	.....
H_{24}	24	4.80	.....	.....	.....	4.98
O_8	128	25.60				
	500	100.00				

[In connection with the above we reproduce the following notes from an examination of the bark of Jamaica dogwood in the Laboratory of Parke, Davis & Co.—EDS. GAZ.]

The bark of Jamaica dogwood contains, besides gum, sugar, and ordinary organic constituents:

1. A brown, acid resin, soluble in alcohol, chloroform, ether and fusel oil. Its alcoholic solution has a mild astringent taste. It gives no characteristic reaction with iron salts, is soluble in alkaline solutions, from which it can be re-precipitated by mineral acids. On heating with dilute acids it is decomposed, sugar being a product.

2. A white, indifferent resin, soluble in alcohol, chlorofrom, ether, fusel oil and carbon disulphide, insoluble in alkalies and acids. The alcoholic solution has a neutral reaction and is tasteless. If the solution be allowed to evaporate slowly it separates as a white powder. If heated moderately it melts and turns yellow.

If these two resins are mixed, a portion of the product becomes soluble in warm water.

3. Extremely minute quantities of a volatile oil, from which on heating with sulphuric acid a resin separates which is soluble in alkalies, and re-precipitated from this solution by acids.

4. Indications of a volatile alkaloid. The quantity of bark experimented upon (12½ lbs.) was too small to obtain by distillation with caustic alkalies a quantity of this alkaloid sufficient for a thorough examination. I have thought best however to communicate the results obtained so far as the limited quantity would permit investigation.

The distillate obtained had a strongly alkaline reaction and was slightly turbid from the presence of a small quantity of essential oil. It was neutralized with sulphuric acid, evaporated to four fluidounces and shaken with ether, which removed a yellow acid resin, soluble in alkalies and re-precipitated by acids.

The acid aqueous solution was now neutralized with potassa, but without any noticeable turbidity ensuing, and again shaken with ether. On evaporating this ethereal solution, a faintly yellowish amorphous mass was left behind; on heating a small portion with fresh soda-lime the vapor evolved, when brought into contact with an atmosphere containing hydrochloric acid gave plainly visible fumes. Another portion, dissolved in dilute sulphuric acid gave precipitates with the following general reagents for alkaloids: tannin, Mayer's solution, phosphotungstic acid, auric chloride, platinum chloride. Precipitates were not obtained with potassium sulphocyanide potassio platinic sub-cyanide, phosphomolybdic acid and iodic acid was not decomposed by it.

On neutralizing the faintly yellowish-colored acid solution it becomes colorless. When treated with water, the largest part of the residue dissolves, but the solution does not possess any noticeable taste.

Calomel in Large Doses in Diphtheria.

BY P. P. SHORTS, M. D., LUDINGTON, MICH.

AS the specific cause of diphtheria has escaped, so far, the comprehension of scientists and remains a hidden mistery, and I shall not attempt to theorize or to offer any hypothesis upon it, but shall proceed to report through you to my professional brethren, the results of the use of calomel in the treatment of four cases of diphtheria in my practice.

Case 1.—A boy æt. 3½ years; taken with a severe chill, followed by high fever, 103½°, with vomiting. Pain in head, back and bones. Upon examining the throat I found right tonsil covered with a pale colored membrane, general redness of entire throat. A few isolated patches upon the posterior wall of pharynx, and tough tenacious plug of mucous appeared to fill the dome of pharynx and close the posterior nares. The face was flushed eyes, puffed and sub-maxillary glands upon right side greatly enlarged, presenting unmistakable evidences of genuine diphtheria. My old treatment had been salicylate of soda, with aconite to reduce fever and temperature, saturated solution of hydrate chloral applied with a brush as a topical remedy and tinct. mur. iron with. poke root, quinia and glycerine as a constitutional remedy. The above was my favorite and well tried treatment which was only changed when something would arise demanding especial attention with different remedies to meet urgent indications. The above was supplemented by a flaxseed poultice saturated with a liniment of spts. camphor, kerosine and olive oil, and applied externally to the throat as hot as could be borne. This was thoroughly pushed in detail for 18 hours without arresting in the least, development of membrane or any of the most serious symptoms. The tongue remained dry; bowels constipated; pulse still rapid, 135 per minute, and everything spoke in loud tones. No change for the better. I became fearful that my little patient would die, unless something different was done, and thought I could see plain indications for the use of a remedy which would rouse to action the alimentary glandular system so as to fit those useful functionaries for duty, so that whatever was given with a view of reaching the enemy in his habitat, the blood, would be taken up by the absorbents to be utilized in the fight for life. I thought of calomel as recommended by Dr. Reiter, and although a foe to that time honored agent, more especially in large doses, particularly in diseases tending to destroy life by asthenia, I resolved that I would take the doctor's advice and watch developments. My first powder contained gr. xv, which was followed every hour by gr. v until greenish watery bilious evacuations were passed by the bowels. In about four hours from exhibition of first powder the skin and tongue became moist, fever began to abate and my little patient changed remarkably for the better. Every three hours I gave chlorate potas. in grs. v, dissolved in water, with a mixture of:

℞ Tinct. baptisin, ʒ j.
Aquæ, ℥ jv.

M. S. One teaspoonful every three hours, alternating with the chlorate mixture.

In less than 12 hours from first dose of calomel, the membrane began to change in color and to disintegrate, assuming more the appearence of thick creamy pus than an organized membrane. The urine, which

had been high colored and scanty, became amber colored, abundant, of normal specific gravity, and reaction. The intellectual and volitionary faculties revived, and my little patient became cheerful and active, expressing a desire to get up. Upon third day from beginning calomel the throat was entirely cleaned of membrane, and aside from the weakness, patient apparently out of danger, when we resumed our tonics, with plenty of liquid, but nourishing food, and discharged the case in six days from date of attack.

Case 2.—Girl, æt. 7. Phlegmatic; body well nourished; in the same family, with same sanitary surroundings; a niece of the mother of case 1, with whom she was living, her own mother being insane. Considering her family history, temperament and all, I feared to venture the calomel treatment, so I began with her as I did with No. 1, only by giving the salicylate of soda in larger doses, so as to be sure and secure its antipyretic effect. Fever subsided from 104° to 102° in 12 hours. Membrane covering both tonsils and entire pharynx with an occasional greenish spot dotting it, at which point the membrane would appear greatly thickened. Breath terribly fetid. Secretions and excretions deficient. Face swollen. Patient stupid, in which condition she remained for 12 to 16 hours, when the fever again increased with a change for the worse generally, I felt that I was again cornered, and having lost all confidence in potas. chlorate, sulphocarbolate soda, large doses tinct. mur. iron, alcoholic stimulants, carbolic acid, and glycerine, in fact, everything I had ever read off and nearly all of which I had used on some occasion, I resolved again to try calomel, as before, with, I am happy to say, most satisfactory results to myself and all concerned. Her recovery was complete in six or eight days from date of attack, and what is pleasing, she appears free from that terrible train of threatening symptoms which so often are the precusors to paralytic troubles and sometimes death.

Case 3.—Boy in same family, æt. 4½ years. Taken as the others, except with more obstinate vomiting and greater engorgement of sub-maxillary glands and greater swelling of the face and eye-lids. Upon my first examination I found that as yet no exudate had formed upon his throat, which was very red and greatly congested. He was a thin, spare lad, whose body was poorly nourished, and of a nervous temperament. I ordered a mustard plaster over epigastrium, with a half cupfull of hot soda (saturated) water, to be taken as hot as possible, to be followed in one-half hour with grains xx of calomel, with a view of testing its power of not only controlling the constitutional disturbances, but of preventing the formation of a membrane in the throat. Next visit, twelve hours afterwards, after having exhibited in all 50 grains calomel in divided doses, one hour apart, I found the throat covered with a thick creamy-like liquid, scarcely capable of retaining its position if touched, easily removed with a swab, and apparently lacking the ability to organize into a membrane. The general redness had nearly disappeared, engorgement of glands subsided, swelling of face gone, and my patient beyond all danger of serious throat trouble. As his bowels had not moved, I ordered a cathartic dose of Rochelle salts, which operated nicely, followed by free catharsis, without, as one would naturally expect, much weakness. I then ordered an alterative tonic as follows:

℞ Quiniæ sul., gr. xv.
Tinct. ferri mur., ʒ iv.
Tinct. phytolaccæ decand., ʒ iij.
Glycerinæ, ʒ ij.
Aquæ, q. s., ad., ʒ iv

M. Sig. One half to one teaspoonful every four or six hours.

Case 4.—Adult; male; 19 years of age. Contracted diphtheria while at work at a logging camp. What the source of infection was he could not tell, except that a child had died at the camp over a month previous with what was supposed to be quinsy. Treated him with antiseptic and astringent gargles, for four days, with which I associated salicine, quinia sul. and poke root, until finally he became so much worse that we were obliged to select something more active. I told him my next change would be to large doses of colomel, which I would venture to use if he would to be careful and do as I said. He consented and I gave him for a beginning grains xx, followed every two hours with grains xv, until we secured free catharsis. His improvement began after taking the second dose. Chlorate potass. in grains viij was given every three hours, and hot flaxseed poultices externally, followed by alterative tonics as restoratives. Recovery in ten days from first visit.

As results are what we should particularly note, I think the above cases show much in favor of calomel as a remedy deserving of further trial in the treatment of a disease so destructive as diphtheria has been during the last two years. With me, it now stands at the head of the list of all remedies in the treatment of this terrible disease. I should like to hear from others concerning its action in this disease.

Some Clinical Notes.

By F. E. Stewart, M. D., Ph. G., S. W. Hospital, Philadelphia, Pa.

IN prescribing cascara cordial (P., D. & Co.), I notice that those who are not acquainted with its properties are apt to employ it as a cathartic. This seems to me is a mistake. From a long experience with this preparation, both in hospital and private practice, in my own hands and in the hands of others, not only in Philadelphia, but New York and elsewhere, I am fully convinced that the opinion of the introducer of rhamnus Purshiana is a right one in this respect, viz., the drug is not to be considered a cathartic, but a stimulant to the secretory organs, and a tonic to the muscular coat of the bowels, thus producing a gentle laxative *secondary* effect, if I may use the term. In one case in my practice, ʒ j doses three times daily relieved a most distressing dyspepsia, but hardly any perceptible effect on the bowels was noticed.

The following formula is an excellent one in dyspeptic cases attended with belching of wind after meals, due to want of tone of the stomach, and when a tonic is indicated:

℞ Sodii bicarbonatis, grs. v
Tr. nucis vomicæ, ♏v
Tr. capsici, ♏ijss
Cascara cordial (P., D. & Co.'s) q. s. add ʒ j.

M. Of this we give a teaspoonful either before or after meals guided by the effect we wish to produce.

Alkalies before meals increase the secretion of gastric juice so that in cases where this is end desired it is given before meals. Sometimes, however, when the patient complains of much acidity of the stomach a teaspoonful after meals seems to produce the best effect.

Cascara cordial is an elegant vehicle for the administration of many remedies in place of the usual elixir. This is especially true when a slightly laxative effect is desired.

We are employing desiccated blood with marked success as a building up measure in scrofulous and syphilitic cachexia at the Southwestern Hospital. In eye cases, for example, we have been much gratified to find how much benefit can be derived from it used to build up the general health thus assisting nature in the healing process. The formula we employ is:

℞ Sanguinis bovini exsiccati, ʒ vi.
Aquæ, f ʒ iv.

M. Ft. sol. et adde.

Spts. vin. gal.,
Glycerinæ, ăā f ʒ j.

M. Sig. Tablespoonful or more every three hours.

In prescribing berberis aquifolium in scrofulous and syphilitic cases I have frequently noticed that good effects immediately follow; but in a few days the drug seems to lose its power, and its continued administration is followed by injury rather than benefit. This has also been the experience of several New York gentlemen connected with the hospitals of that city. For some time I have been endeavoring to account for this, and think I have found a solution. The administration of an agent that increases tissue waste (which seems to be the rationale of the action of alteratives) is followed by improvement just so long as an increase of tissue waste is desirable. But it is not desirable to continue this action without a corresponding supply of material to build up good tissue in the place of that destroyed by the alterative. This end is accomplished when the patient eats food. But in the cachectic cases alluded to there is usually no appetite and the patient is already reduced in flesh. There is a marked improvement for a little while from the stimulant effect on the process of tissue metamorphosis, but a continuance of this stimulation can only injure by pulling down an impoverished body unless at the same time nutrients are employed. Desiccated blood used with the berberis in these cases is often followed by immediate improvement.

An Appliance for Broken Nose.

By J. D. Kelly, A. M., M. D., Sherburne, N. Y.

A FEW days ago a patient came to my office with an injured nose, which, upon examination, I found considerably deformed by being forced to one side, out of the median line fully a half inch, the nasal bones being broken. A week had elapsed since receipt of the injury, and, although no trouble was experienced in restoring the parts to their normal relations, they evinced an immediate and constant tendency to assume the position of deformity. I therefore took my patient to a tinsmith, whom I had construct and fit upon the patient there, under my direction, the following simple apparatus for maintaining pressure and holding in position broken and distorted noses:

It is made of tin, and consists of a band two inches in width, fitting the head snugly like a hat band. The anterior half may be covered with roller bandage to prevent tiresome pressure upon the forehead. A smaller band, one inch in width, crosses the vertex from ear to ear and is fastened (soldered) at the sides, to prevent the larger band from slipping down. On that side of the large band, as it rests upon the head, and corresponding with the side upon which the pressure is required, a piece of spring wire, about six inches in length, and varying in size with the amount of force required, is fastened at one end, the spring thence extending forward and downward sufficiently to bring its other end quite upon the place at the side of the nose where the force is to be applied. A cork, covered with chamois leather, is then stuck upon this end of the spring, the large end of the cork below at the ala nasi, the small end below the inner angle of the eye. The spring is finally adapted to the case by being overbent in the direction in which the force is to be applied, so that when in position it will be sufficient both in degree and direction.

Reports on New Remedies.

From Private Practice.

Elephantopus Tomentosus in Coughs.

By H. H. Baker, M. D., Cleveland, O.

NOW that the season for coughs is here again, I will attempt to perform a duty over which I have procrastinated for many months—that is to bear witness to the real excellence of the fluid extract elephant's foot in bronchial troubles, especially those of long standing. I have never used it entirely alone, and it is, in my opinion, doubtful if it is advisable to do so. There are so many indications to be met in these cases that it seems unreasonable to expect that any one remedy will be as servicable as a well selected combination; but of this I am positive, that after a trial of several weeks of the ordinary

remedies, with no benefit, I have been able to effect a rapid cure by the use of a mixture of which the elephant's foot was an important part. It is certainly deserving of a more extended trial. My experience has satisfied me that it is perfectly safe and free from any unpleasant after effects when given in reasonable doses.

Lippia Mexicana.

By Th. Bombelon, M. D., Bergen, Germany.
(Translation.)

AMONG the various new remedies which have lately come under my observation, I desire to call the attention of my brother practitioners to the lippia Mexicana, which in some cases of bronchial diseases has done me the most excellent service. My prescription is generally one teaspoonful of P., D. & Co.'s tincture lippia Mexicana, three times a day. Patients are not only freed from their cough, but the viscidity of the excretion is reduced and becoming more fluid is readily expectorated. In one case expectoration was promptly stopped altogether, and in others the best hope was given for an early and entire cessation. Lippia Mexicana is now a favorite ingredient in all my cough mixtures, and I shall continue to investigate its properties.

Manaca in Rheumatism.

By F. W. Putnam, M. D., Binghampton, N. Y.

I DESIRE to relate, briefly, the history of one case of rheumatism, treated with fluid extract manaca. Was called to case at 6 P. M. February 20. Two years ago patient had a two months' siege with the same ailment. Has a decided rheumatic diathesis. Found him suffering from a combination of sciatic and muscular rheumatism. Ordered two glasses of hot lemonade and half a drachm of jaborandi at bedtime, a saline cathartic, and ten drops of fluid extract manaca, four times at night, and every two hours the next day. Patient's bowels moved during the night. He arose from bed, and became chilled. Perspiration had been free from the time he took the lemonade and jaborandi till this time. Called the next forenoon, and he thought he didn't feel as well. It was clear that the chill he received when his bowels moved, had something to do with it. Ordered same treatment continued.. The next morning, he expressed himself as decidedly improved. I doubt not, had he remained in bed during the first night, he would have improved the second day. As it was a decided improvement showed itself in the thirty-six hours.

Reports on New Remedies.

From Hospital and Dispensary Practice.

Jamaica Dogwood, Ustilago Maidis, Grindelia Robusta, Yerba Santa, Manaca, and Jaborandi.

By L. B. Firth, M. D., Brooklyn, N. Y.

I TAKE great pleasure in sending herewith a report on the above new remedies which I have had occasion to try at the Brooklyn Eclectic Dispensary. Have also used eucalyptus globulus, in malarial diseases with success, and I am lately having good results with cascara sagrada in obstinate constipation, but will defer reporting on these until a future occasion.

I cannot do better, in giving results of my experience with the remedies, than to report the cases as they occurred.

Jamaica Dogwood.—Mr. C., æt. 26, consulted me June 10, 1882. He has been drinking periodically for the past three years, steadily the last three weeks. Has had delirium tremens on two occasions, and applied to me for treatment, fearing another attack; has not slept for several nights; no appetite; stomach very irritable; feels very nervous; has muscular tremor, etc.

Recommended that he partake of good beaf tea, with fat carefully removed, and seasoned with capsicum. Advised abstinence from intoxicating drinks. Gave the following:

℞ Quiniæ sulph. gr. xvj
Acidi sulph. arom., q. s.
Tr. sem. cardamomi co., ʒ ij
Syr. aurantii cort. q. s. ad. ℥ ij.

M. Sig. A teaspoonful three times daily.

Also for the nausea:

℞ Bismuth subcarb., ʒ j
Etheris chlorici, ʒ jss
Glycerinæ, ʒ j
Mucil. acaciæ, ℥ ss
Aquæ menth. vir. q. s. ad ℥ ij.

M. ft. mistura. Sig. A teaspoonful every two or three hours.

For the insomnia ordered the following:

℞ Potassii brom., gr. lxxx
Chloral. hydratis, ʒ ijss
Glycerinæ, ʒ j
Aquæ, q. s. ad. ℥ ij.

M. Sig. Two teaspoonfuls—in water—commencing at 10 P. M. and continuing every hour—if necessary—until three doses have been taken.

June 11. Found the patient had passed a restless night. The condition of the stomach had so far improved that he was able to retain the bromide and hydrate chloral mixture, but otherwise was no better, and was fast going into acute delirium tremens. Discontinued the bismuth and quinia mixtures, and prescribed the following.

℞ Potassii bromidi, ʒ v–℈ j
Glycerinæ, ʒ ij
Tr. lavandulæ co., ℥ j
Aquæ, q. s. ad ℥ iv.

M. Sig. Two teaspoonfuls every two hours.

On calling at night found the patient had not slept. Gave hypodermic injection of morphia (½ gr.). Called again in a few hours, and found this had no effect. Gave ½ gr. ext. Indian hemp.

June 12. Had no sleep the night before; has hallucinations; delirium fully developed; wants to jump out of the window, and can with difficulty be restrained. Continued the bromide mixture every three hours. Gave also tincture digitalis, but without benefit. Called at night, found patient delirious as ever. Friends importuned me to give something to make patient sleep. I replied that that was what I was trying to do, believing that if sleep did not have a curative effect, it would at least help exhausted nature to recuperate. Did not like to give opium; morphia, hypodermically, failed, as did also extract Indian hemp, hydrate of chloral, and bromide of potassium. What was I to do? Remembered I had some of Parke, Davis & Co.'s fluid extract Jamaica dogwood, and thought it would be a good case in which to test its virtue as a hypnotic. Gave

fluid extract piscidia erythrina, ʒ j, in one dose. To be repeated in two or three hours, if first dose failed.

June 13. Was pleased to find that my patient had quite a good sleep the night before. One dose of the dogwood sufficed. Patient much better. Discontinued bromide mixture and gave instead:

℞ Quiniæ sulph., grs. xxxij.
Acidi phosphorici dil., ʒ vss.
Elixir. calisayæ, q. s., ad., ʒ iv.

M. Sig. A teaspoonful three times daily. Gave fluid extract Jamaica dogwood, ʒ i., at night.

Patient rapidly convalesced.

August 14. Was called again to see same patient. Found him again suffering from the effects of a protracted debauch. Exhibited some premonitory symptoms of acute delirium tremens. Was troubled with insomnia. Gave him the bromide mixture through the day. This had no effect in quieting him, or producing sleep. Gave at night, in one dose:

Fl. ext. piscidia erythrina (P., D. & Co.'s), ʒ i.

August 15. Slept but an hour the night before. At night gave the following in one dose:

Fl. ext. piscidia erythrina (P., D. & Co.'s), ʒ iss.

August 16. Slept all night after taking the dogwood. Feels much better. Ordered acid phosphates, and the Jamaica dogwood to be given at night for a few nights.

Patient soon convalesced.

October 14. Was called again to see same patient. He is still a victim to alcohol. Has been on a spree more protracted than ever. Has all the premonitory symptoms of acute delirium tremens, with more gastric irritation than usaal. Gave bromides, but stomach would not tolerate them. Rejected beef tea and all other nourishments. Prescribed:

℞ Bismuthi subcarb., ʒ i.
Etheris chlorici, ʒ i.
Spts. vini gal., ʒ ij.
Glycerinæ, ʒ i.
Mucil. acaciæ, ʒ iv.
Aquæ menth. vir., ʒ i.

M. Sig. A teaspoonful every two hours.

Alternate with this the following:

℞ Glycerinæ, ʒ ij.
Aquæ camphoræ, q. s., ad., ʒ ij.

M. Sig. A teaspoonful.

Gave at night in one dose:

Fl. ext. piscidia erythrina (P., D. & Co.'s), ʒ i.

Stomach would not tolerate the dogwood. Being informed of the fact gave hypodermic injection of morphiæ sulph.

October 15. Did not sleep the night before. Stomach less irritable. Can retain the stomachic medicines. Has taken also small quantity milk and lime water. Is very delirious. Can with difficulty be retained. Has hallucinations and exhibits all the cowardice of a victim of delirium tremens. Discontinued the above mixtures and ordered the following instead:

℞ Etheris chlorici, ʒ i.
Glycerinæ, ʒ ij.
Aquæ camphoræ, q. s., ad., ʒ ij.

M. Sig. A teaspoonful every two hours.

Also,

℞ Potassii brom., ʒ iv.
Glycerinæ, ʒ ij.
Aquæ, q. s., ad., ʒ ij.

M. Sig. A teaspoonful in alternation with other medicine.

Gave at night:

℞ Fl. ext. piscidiæ erythrinæ (P., D. & Co.'s), ʒ ij.
Tr. ol. menth. pip., gtt. x.
Glycerinæ, q. s., ad., ʒ ss.

M. Sig. Two teaspoonfuls. Repeat in two or three hours if necessary.

October 16. Stomach improved. Retained all medicines. Otherwise unimproved. Slept but little. Discontinued chloric ether mixture. Gave the bromide mixture. Prescribed the following for night:

℞ Fl. ext. piscidiæ erythrinæ (P., D. & Co.'s), ʒ ij.
Glycerine, ʒ i.

M. Sig. Two teaspoonfuls. Repeat in two or three hours if necessary.

October 17. Slept well last night. Took but one dose of the dogwood. Is much improved. Take the bromide mixture every three hours, and at night take one drachm of the Jamaica dogwood.

October 18. Obtained a good sleep last night. Still improving. Discontinued bromides. Recommended acid phosphates. Did not order the dogwood for to-night. Thought he would sleep without it.

October 19. Had a good sleep last night. Convalescing rapidly. I continued the acid phosphates for a couple of weeks, when I put him on citrate of iron and quinine. This he continued for a few weeks. In the meantime I gave him a good lecture on the evil effects of intemperance, which I hope he has profited by; for although I see him occasionally, I have not been called upon to see him, nor has he called to see me professionally up to this date, January 29, 1883.

In this case the Jamaica dogwood certainly acted like a charm. On the first administration of it, it seemed to meet the indication required, when other means failed.

On the second occasion, August 14th or 15th, by allaying all nervous irritation, and producing a calm and refreshing sleep, it evidently cut off or aborted what promised to be a severe attack of acute delirium tremens.

On the third occasion, October 14th, there is no doubt that, could the stomach have tolerated it at first, the attack would have been of shorter duration than it was. As it was, there was no improvement until the stomach could retain it, and he got a sufficient quantity to affect the system. It will be noted that but one drachm of the Jamaica dogwood sufficed in the first attack, while in the other two it was necessary to give one and a half drachms.

An interesting feature in the action of this remedy in this case, is, that although large doses were administered, it caused no bad after effects. No headache, nausea, etc. The sleep seemed to be natural and refreshing. This is an important feature, and should it hold good in other cases, Jamaica dogwood will certainly supercede opium as a hypnotic.

Have used this drug in other diseases with marked benefit. I recall to mind a case of acute inflammatory rheumatism in a young girl, the pain being so severe she could obtain no sleep for several nights. Thirty drops of the remedy had the desired effect. Have used it successfully in severe bronchial irritation. In one case, that of a young girl, a patient at the dispensary, first gave the following prescription, without benefit:

℞ Fl. ext. hyoscyami, ʒ j.
Tr. opii camph., ʒ ij.
Syr. ipecac, ʒ iij.
Glycerinæ, ʒ ij.
Syr. tolu, q. s., ad, ʒ iij.

M. Sig. A teaspoonful every two hours.

After taking this awhile with no benefit, as before remarked, gave the following:

℞ Fl. ext. hyoscyami, ʒ j.
Fl. ext. piscidiæ erythrinæ (P., D. & Co.), ʒ ijss.
Syr. ipecac, ʒ iij
Glycerinæ, ʒ ij.
Syr. tolu, q. s., ad, ʒ iij.

M. Sig. A teaspoonful every two hours.

This seemed to allay the irritation and incessant coughing in a short time. Have also used it in some cases of chronic bronchitis with the happiest result. Generally prescribe it as follows:

℞ Fl. ext. yerbæ santæ, ʒ j.
Fl. ext. piscidiæ eryth., ʒ vj.
Tr. ol. anisi, ʒ ij.
Glycerinæ, ʒ j.

M. Sig. A teaspoonful three or four times a day.

Since writing the foregoing reports, I have had another case of insomnia from alcoholism, in which I gave the Jamaica dogwood, but when given alone I did not get the same good results that I obtained in the case of Mr. C. The case I refer to is Mr. J. L., æt. 61. Called at dispensary first time February 2, 1883. He has been dissipating for some time back, but stopped drinking a few weeks ago. He informs me that for the last seven weeks he has been unable to obtain a natural sleep without the aid of stimulants, either in the form of malt or spirituous liquors. I prescribed the following.

℞ Fl. ext. piscidiæ erythrinæ (P., D. & Co.), ʒ j.

Sig. One-half teaspoonful. If it does not have effect in two hours take a teaspoonful. Repeat this dose every two hours until three doses are taken.

Advised him to discard the stimulants he usually takes at night to procure sleep.

Feb. 3. Took the Jamaica dogwood as directed, but it had no effect whatever. Gave the following:

℞ Chloral. hydratis.
Potassii brom., ăă ʒ iv.
Glycerinæ, ʒ ss.
Aquæ, q. s., ad. ʒ iv.

M. Sig. Two teaspoonfuls every two hours.

Feb. 5. This also failed as a hypnotic. Prescribed the following:

℞ Fl. ext. piscidiæ erythrinæ (P., D. & Co.'s), ʒ j.
Potassii bromidi.
Chloral. hydratis, ăă ʒ iv.
Glycerinæ, ʒ ss.
Aquæ, q. s., ad. ʒ iv.

M. Sig. Two teaspoonfuls every two hours.

Cautioned patient, as before, against taking any stimulants.

Feb. 6. Feels happy. Had a good night's rest after taking three doses of the medicine. Commenced at 8 o'clock, and soon after 12 P. M. fell asleep and did not awake until 9 A. M.

Ustilago Maidis.—Case 1. Was called, August 1, 1882, to see Mrs. B., æt. 30. Found her suffering with uterine hemorrhage. Was informed that about a month previously from some "unknown cause" she had severe uterine hemorrhage (being then about three months pregnant). She was confined to her bed a few days, during which time fœtus and placenta were expelled, as she thought. About the fifth day got up and went about her household duties, although still having slight hemorrhage, which occasioned her no alarm, thinking it would soon cease; so she did not send for medical assistance. This continued until August 1st, when hemorrhage was so profuse and alarming that I was sent for. Found her anæmic; pulse feeble, though extremities were warm; hemorrhage quite considerable. Prescribed the following:

℞ Fl. ext. secalis cornuti (Squibb's), ʒ ss.
Tr. ol. cinnamomi, ʒ jss.

M. Sig. A teaspoonful in water every two hours.

Left, with word that I would call again in the afternoon. Was summoned hastily about five or six hours afterwards. Found the patient in an alarming condition. Pulse scarcely perceptible; extremities cold, and the hemorrhage so great that the patient said, in a voice scarcely above a whisper, that it was "pouring from her." There was no time to lose. Gave her stimulants immediately; ordered sinapism to extremities; and sent for powd. alum and absorbent cotton. Removed clots; made a strong solution of the alum, and saturating the cotton with it, tamponed the vagina carefully and thoroughly. Gave the following:

℞ Pulv. aluminis.
Pulv. potassæ nitratis, ăă ʒ j.

M. Div. in chart. No. xx.
Sig. One powder every half hour.

Gave also occasionally a small quantity of brandy. Remained with her until I saw that she was rallying, and it was safe to leave her. Removed the tampon the second day. Hemorrhage had ceased. Examined thoroughly, but could detect no placenta. Gave the powders every three hours. Continued to improve until about the third or fourth day, when I was again hastily called. Found the patient again flowing considerably. On inquiry learned that her husband has become so intoxicated that he was causing quite a lively time in the house, smashing crockery, furniture, etc. Gave the alum powders every half hour, finding no improvement at the end of a few hours, discontinued the powder, and gave the following:

℞ Fl. ext. ustilago maidis (P., D. & Co.'s), ʒ ss.
Syr. aurantii cort., ʒ jss.

M. Sig. A teaspoonful every two hours.

This had the desired effect. The hemorrhage soon ceased. Continued the ustilago mixture for a few days at longer intervals. Patient soon convalesced.

The result of the action of this remedy in this case, leads me to think that possibly had I used it, instead of the secale cornutum, I would have had less trouble.

Case 2. Mrs. P. æt. 25, sent for me August 28. Found her suffering with uterine hemorrhage, though not enough to cause alarming symptoms. Had a miscarriage four days before. Fœtus passed at that time, but placenta still retained. This was her third successive miscarriage.

Ordered the following:

℞ Fl. ext. secalis cornuti, (Squibb's)
Syr. aurantii cort., ăă ʒ j.

M. Sig. One-half teaspoonful every three hours.

On my next visit, learned that she could not retain

the medicine; asked me if it was not ergot. Being informed that it was, she remarked that she never could take it, as it always nauseated her so that she could not retain it. Ordered the following with the remark that this medicine although similiar to the other in taste and smell is quite different:

℞ Fl. ext. ustilago maidis, (P., D. & Co.'s)
Syr. aurantii cort., ♏ ʒ j.

M. Sig. One-half teaspoonful every three hours.

Called the next day, found the placenta had been expelled, and the patient consequently happy. Upon inquiry learned that the medicine had not nauseated her in the slightest; she could take it readily. I was much pleased with the action of the ustilago in this case. The fact of its being tolerated by the stomach in preference to the secale, I consider an important point in favor of the ustilago.

Case 3. A Mrs. B., æt. 22, about three months pregnant, was taken with severe uterine hemorrhage September 26, 1882. Discovered upon my arrival that the fœtus had been expelled, but the placenta was still retained; had considerable hemorrhage; no pain; relaxed condition of uterus. Ordered the following:

℞ Fl. ext. ustilago maidis, (P., D. & Co.'s) ʒ ss.

Sig. Twenty drops every two or three hours.

Called again in a few hours. Found the placenta expelled with but little hemorrhage. Continued the ustilago in small doses for a few days. Patient rapidly convalesced with no after trouble.

I have also used this remedy in a few cases of labor with good results. Have discarded the secale cornutum in these cases for some time, and have used instead, quiniæ sulph, 5 grs. every half hour until 15 grs, were taken, which generally acts very nicely. Lately I have used the ustilago maidis, and find its action similar to the quinine. The pains occurring naturally, they being intermittent in character and not so persistent as is the case with the ergot of rye.

My experience thus far with the remedy has been very favorable. I regard it as a much more safe and efficient remedy than the secale cornutum.

Grindelia Robusta.—Case 1. Mr. H., æt. 70, a sufferer from asthma for many years, applied at dispensary for treatment, August 19, 1882. Paroxysms generally occur periodically, and are very severe when they do occur. Has tried almost everything prescribed by physicians, and recommended by others, with but little success in relieving the paroxysms. Auscultation shows valvular lesions. Patient is anæmic and debilitated.

Prescribed the following:

℞ Tr. ferri chloridi, ʒ j
Syr. simplicis, ♀, s. ad ʒ ij.

M. Sig. A teaspoonful every four hours, in a wineglassful of water. Alternate with this the following:

℞ Tr. digitalis, ʒ jss
Glycerinæ, ʒ ij
Aquæ, q. s. ad ʒ ij,

M. Sig. A teaspoonful.

For the paroxysms, gave the following:

℞ Tr. lobeliæ comp., (Am., Dispensatory) ʒ j
Tr. ol. anisi, ʒ ij
Syr. tolu, q. s. ad ʒ ij.

M. Sig. A teaspoonful every two hours during the paroxysms.

September 9. General health somewhat improved, but asthma as bad as ever. Paroxysms as severe, and occurring as frequently. Discontinued from mixture, continued the digitalis and gave the following in alternation:

℞ Tr. lobeliæ comp., ʒ ij
Potassii iodidi, ʒ ij, ♑ ij
Syr. tolu, q. s. ad ʒ jv.

M. Sig. A teaspoonful.

September 26. Reports no improvement. Gave the following:

℞ Fl. ext. grindeliæ robustæ, (P., D. & Co.'s).
Syr. tolu, ♏ ʒ i.

M. Sig. A teaspoonful every two hours during the attack and every four hours during intervals. Discontinue digitalis mixture for awhile.

September 30. Thinks he derives some little benefit from the last medicine. Prescribed:

℞ Fl. ext. grindeliæ robustæ, (P., D. & Co.'s) ʒ ij.
Potassii iodidi, ʒ ij, ♑ ij.
Syr. tolu, q. s., ad., ʒ iv.

M. Sig. A teaspoonful every three hours.

October 31. Is much improved. Paroxysms occurring at longer intervals, less severe and of shorter duration. Continued treatment. Also six drops tincture digitalis three times daily.

November 25. Has had no paroxysm since his last visit. Iodide of potassium disagrees with him. Prescribed the same mixture with the iodide of potassium omitted and three drachms of tincture digitalis substituted.

December 2. Has had one slight paroxysm since last visit. Due probably to sudden atmospheric changes, etc. Seems to be much improved in general health. Continue same medicine.

Patient has not reported up to this date, February 1, 1883.

Case 2. Mr. C., æt. 47. Has had chronic bronchitis for some years and occasional attacks of asthma. Called at dispensary for treatment October 8, 1881. Prescribed:

℞ Fl. ext. yerbæ santæ (P., D. & Co.'s), ʒ iss.
Fl. ext. grindeliæ robustæ (P., D. & Co.'s), ʒ ij.
Glycerinæ, ʒ ss.

M. Sig. A teaspoonful every three hours.

October 11. Does not seem much improved. Prescribed the following:

℞ Fl. ext. grindeliæ robustæ,
Fl. ext. yerbæ santæ,
Tr. lobeliæ comp., ♏ ʒ ij.

M. Sig. A teaspoonful every two or three hours.

October 28. Is somewhat improved. Has had no asthmatic attack since last visit. Continue treatment. Take the medicine every four hours.

November 19. Reports improving. Has had one attack since last visit, but it was milder than usual. The bronchitis seems to be less troublesome. Continue the same four times daily.

December 6. Still improving. Has had no attack of asthma since. Prescribed:

℞ Fl. ext. yerbæ santæ, (P., D. & Co.'s),
Fl. ext. grindeliæ robustæ, (P., D. & Co.'s),
Glycerinæ, ♏ ʒ ij.

M. Sig. A teaspoonful three times daily.

December 27. Has not been troubled with asthma since, but is still troubled with the bronchitis. Continued the same with this alteration:

℞ Fl. ext. yerbæ santæ, ʒ iij.
Fl. ext. grindeliæ robustæ, ʒ ij.
Glycerinæ, ʒ j.

M. Sig. A teaspoonful three times daily before meals.

Also, emulsion cod-liver-oil, a tablespoonful after each meal.

February 11, 1882. Is greatly improved. Has not been troubled with asthma and is nearly cured of the bronchitis. Continue small doses of the fluid extract yerba santa.

April 15. Discharged cured.

Case 3 was a boy named J. W., æt. 15. Called at dispensary for treatment October 10, 1881. Has been suffering with asthma since he was five years old, when he had rubeola et pertussis. Prescribed:

℞ Fl. ext. grindeliæ robustæ (P., D. & Co.'s), ʒi.
Potassii iodidi, ʒiss.
Syr. pruni virg., q. s. ʒiv.

M. Sig. A teaspoonful every four hours.

November 16. Has had no attack of asthma since. Continue treatment.

December 28. Has had one attack of asthma since last visit. Continue treatment minus the iodide of potassium.

February 11, 1882. Left off taking medicine in the early part of January. Has had two asthmatic attacks since. Prescribed:

℞ Fl. ext. grindeliæ robustæ, (P., D. & Co.'s), ʒj.
Tr. ol. anisi, ʒij.
Syr. tolu, q. s., ad., ʒiv.

M. Sig. A teaspoonful three times daily, before meals. Also, emulsion of cod-liver-oil with wheat phosphates (Phillips), a teaspoonful after each meal.

May 20. Has been free from asthma. Discontinue cod-liver-oil, and take small doses of the fluid extract grindelia robusta. Requested him to report in three months should he continue to improve and have no occasion to report before.

August 29. Has had no attack. General health excellent. Discontinued all medicines. Asked him to report again in three or four months.

December 12. Has not been troubled with asthma, although been exposed to all sorts of weather. Suggested cod-liver-oil through the winter and report in a few months.

Yerba Santa.—Case 1. Mrs. S., æt. 45, has had chronic bronchitis for years. Has been under treatment at the Dispensary for the last five years. Have prescribed almost everything recommended for this affection with but indifferent success. Among the means used and the medicines employed may be mentioned the following: Emulsion cod-liver-oil with the hypophosphites, Winchester's hypophosphites, sesquicarb. ammonia, senega, squills, sanguinaria, and inhalations of iodine and carbolic acid.

Concluded to try yerba santa as follows:

℞ Fl. ext. yerbæ santæ, (P., D. & Co.'s)
Glycerinæ,
Syr. tolu, ää ʒij.

M. Sig. A teaspoonful three or four thmes a day.

Reported in a week; thought she felt somewhat better. Expectoration more free and easy. Appetite has improved somewhat. Continued treatment. The patient reported weekly, and in about a months' time the favorable change in her physical condition was apparent. She is rapidly gaining in flesh; before she looked like a victim of phthisis; she coughs but little now. In about six months time she reported herself as entirely cured.

Case 2. J. K., young man, æt. 16, dispensary patient. Has catarrhal bronchitis, which has continued for several weeks, defying the usual expectorants. Expectoration is very profuse. Prescribed the following:

℞ Fl. ext. yerbæ santæ, (P., D. & Co.'s) ʒiij.
Ammon. sesquicarb., gr. xxxij
Fl. ext. sanguinariæ, ʒss.
Syr. tolu, q. s. ad ℥jv.

M. Sig. A teaspoonful every two hours.

Reported in four days, says he feels much better, coughs much less, and expectoration decreasing in quantity. Continue treatment, but take medicine at longer intervals, every four hours. Reported in a week, and discharged cured.

Case 3. Miss. B., æt. 20, dispensary patient. Catarrhal bronchitis, has been troubled with it for about three months, has been under treatment for it, at other institutions, but without benefit. Expectoration which presents the peculiar appearance of bronchial sputa, is raised with difficulty.

Prescribed:

℞ Fl. ext. yerbæ santæ, (P., D. & Co.'s) ℥ss
Tr. lobeliæ comp., ʒj
Tr. ol. anisi, ʒij
Syr. pruni virg., q. s. ad ℥jv.

M. Sig. A teaspoonful every two or three hours.

Reported in a week as being very much improved. Coughs less, and expectorates more freely. Continue treatment, but take medicine at longer intervals. Reported in a week and discharged cured.

Manaca.—Case 1. J. McK., æt. 26. Dispensary patient. Has been suffering with muscular rheumatism for some time. Prescribed the following:

℞ Fl. ext. manacæ (P., D. & Co.), ʒijss.
Fl. ext. cimicifugæ (Squibb's), gtt. xxxij.
Potassii iodidi, ʒij, ɔij.
Syr. simplicis, q. s. ad, ℥jv.

M. Sig. A teaspoonful every three hours.

Reported in four days as being somewhat better. To test the efficacy of the fluid extract manaca, gave it alone, 10 drops, three times daily. Reported in 12 days, and discharged cured.

Case 2. Mrs. S., æt. 30. Has been suffering with inflammatory rheumatism for some weeks. Salicylate of soda, colchicum, cimicifuga, iodide of potassium and other remedies failed to afford much relief. Prescribed fluid extract manaca in five-drop doses every three hours. This did not have the desired effect. Increased the dose to 10 drops, four times daily. This seemed to "do the business," as she rapidly convalesced and was about her household duties in about a week's time.

Jaborandi.—My experiece with this remedy has not been extensive, but have used it for its diaphoretic action in several cases of scarlatina, where the eruption was tardy in making its appearance, with good success. Generally follow it with belladonna, but not immediately, so as to destroy or neutralize the effect of the jaborandi.

Have also had excellent results with it in general anasarca, in conjunction with jalap et bitart. potassa. It has worked especially well in acute albuminuria, where there is much congestion of kidneys, following it with gallic or tannic acid, or tinct. digitalis and iron.

Will test further its therapeutic properties and report on future occasion.

Translations.

[Abstract from an Inaugural Essay by Edward Czerniewski, candidate for the degree of Doctor of Medicine.—University of Dorpat, Russia.]

On the Detection in Forensic Analysis of the Alkaloids of Quebracho (blanco) and Páo-pereiro, with the Methods of Separating These from the Alkaloids of Nux Vomica.

The bark of quebracho blanco (aspidospermum quebracho, Schlecht.) furnishes two alkaloids, aspidospermin and quebrachin; a second South American tree, Páo-pereiro (Geissospermum læve vel Vellozii, All.) furnishes also two alkaloids, Pereirine and Geissospermine. It is true that up to the present time neither the alkaloids nor the plants containing them have become subjects of any judicial investigation. I have been prompted, however, to undertake a study of these organic bases in their relations to chemico-legal investigations, in the first place, by the general interest which forensic chemistry lends not only to poisonous, but to the innocent alkaloids, but especially because these bases yield chemical reactions closely resembling those relied upon for the detection of other alkaloids of far greater forensic importance.

Heretofore strychnia has been recognized by the characteristic reaction with sulphuric acid and potassium bichromate, and curare, as is well known, was the only substance showing a similar behavior. It is now known that both quebrachine and geissospermine exhibit almost precisely the same phenomena. To add to the confusion, the most important reaction of brucia—that with nitric acid—is found also to characterize pereirine. I have undertaken therefore, in the present investigation, not only to trace the history of these new alkaloids in their passage through the organism, and to elaborate methods for their identification in the tissues, but also to determine whether it is possible to separate quebrachine and geissospermine from strychnine, and pereirine from brucine.

In the year 1878, Dr. F. Schickendanz sent to the University of Erlangen a quantity of the bark of a tree which he designated as aspidospermum quebracho blanco, Schlecht., stating that it was employed in South America as a febrifuge, and that he had discovered in it an alkaloid, and requesting that a further study should be made of its chemical and therapeutical properties. The same year G. Fraude obtained from the bark an alkaloid which he called aspidospermine. Hesse afterwards discovered in the bark a second alkaloid, to which he gave the name quebrachine.

The most characteristic reaction of aspidospermine is that with perchloric acid. This is best made by dissolving the alkaloid in dilute sulphuric acid, adding a minute fragment of potassium chlorate and applying heat. There is developed rapidly a red color which is permanent. A slight excess of potassium chlorate, however, carries the oxidation too far and spoils the reaction. This color reaction may be obtained satisfactorily from 1-300 grain of the alkaloid, and, operating with minute quantities, the intensity of the color may serve for approximate quantitative determinations. It will be remembered that strychnine also gives a color reaction with perchloric acid.

The conclusions reached in a course of experiments detailed in the essay are as follows:

1. In the search for the alkaloids of quebracho blanco by the method of Dragendorff, both aspidospermine and quebrachine are taken up from acid solutions by chloroform, while the latter alkaloid is taken up, although less readily, by benzole. From alkaline solutions the same solvents respectively extract the alkaloids still more easily, as might be expected.

2. When quebrachine is dissolved in sulphuric acid and a minute crystal of potassium bichromate is brought in contact with the solution, a blue or violet color is produced, not unlike that given by strychnine under the same circumstances. Hence the discrimination of this alkaloid from strychnia becomes especially important.

3. Quebrachine is distinguished from strychnine, first, by the circumstance that the latter alkaloid is not removed from its acid solutions by chloroform; second, by the violet blue color which the former alkaloid produces with Frœhde's reagent, strychnine giving no characteristic color therewith; and, third, by the physiological test. Curare and anilin, which both give color reactions with sulphuric acid and potassium bichromate, may be distinguished from quebrachine by the same tests.

4. Quebrachine passes rapidly through the alimentary canal, and is very slowly absorbed.

5. Quebrachine is eliminated chiefly through the kidneys, the secretion of which it increases. The elimination begins within a few hours after the drug has been swallowed, and reaches its maximum in from 24 to 48 hours.

6. Aspidospermine is for the most part decomposed in passing through the system, probably in part in the intestine itself.

7. In a medico-legal investigation, quebrachine should be sought for, in order of their importance, in any vomited matters, in the stomach, small intestines, large intestines, liver, blood, urine and feces. Aspidospermine should be sought for in vomited matters, in the stomach, and in the liver.

8. In addition to the reactions described by Hesse, the following may be mentioned as among the most characteristic for quebrachine:

a. A blue color produced by concentrated sulphuric acid and potassium bi-chromate.

b. A cherry red color by concentrated sulphuric acid and sugar.

c. A violet blue by sulphuric acid containing iron.

d. Its behavior with gold chloride, which produces a dingy yellow precipitate, which on warming dissolves and forms a dark cherry-red solution.

The second portion of the essay is devoted to the study of páo pereiro and its alkaloids. This drug consists of the bitter bark of a tree indigenous in various parts of Brazil, and has been variously known as páo pereira, páo forquilta, páo de peute, camarà de bilro, camarà do mato, canudo amongoso, pinguiciba. It is now designated by botanists as Geissospermum læve, or G. Vellozii. The bark was first sent to this country about the year 1838, from Dr. Ané Lallement, of Rio Janeiro, who stated that it was employed by the natives as a febrifuge. In 1838, Dos Santos separated from the bark an intensely bitter alkaloid for which he proposed the name pareirine. In 1839 B. Goas, of Hamburg, and

Pietro Peretti, of Rome, each described an alkaloid derived from this bark under the same name, but with obviously different characters.

Recently Hesse has demonstrated the existence of several alkaloids in the bark. One of these he has named Geissospermine, which he describes as follows: The alkaloid forms small white prisms freely soluble in alcohol, with difficulty in water and dilute alcohol. It dissolves in concentrated nitric acid with a purple red color, which on heating becomes orange yellow. In pure concentrated sulphuric acid it dissolves without color, but the commercial acid or an acid containing traces of iron, produces a more or less intensely blue solution, which afterwards gradually fades. The formula he assigns to it in the anhydrous state is $C_{19}H_{24}N_2O_2$. A second alkaloid which he believes to be identical with that described by Dos Santos and Goas, he calls pereirine. This he obtained as a grayish white amorphous powder, dissolving readily in ether, colored blood-red by concentrated nitric acid, and violet-red by pure sulphuric acid.

The author sums up the results of his own study of these alkaloids as follows:

1. From acid solutions geissospermine is extracted by benzole and chloroform, pereirine only by chloroform; from alkaline solutions geissospermine is removed by benzole, chloroform and amylic alcohol, pereirine by petroleum ether, benzole and chloroform.

2. Geissospermine is distinguished from strychnine by the fact that it is taken up by its solvents from acid solutions, by the reaction with Frœhde's reagent, and by the physiological test.

3. Pereirine may be distinguished from brucine by the fact that chloroform removes it from acid solutions, by its behavior with nitric acid followed by stannous chloride (which does not develope a violet color as in the case of brucia), and by the physiological test.

4. Geissospermine is rapidly absorbed from the alimentary canal and is eliminated by the kidneys. The elimination reaches a maximum rate in from 24 to 72 hours.

5. Pereirine is readily absorbed from the intestines, but is apparently for the most part decomposed in passing through the system.

6. In a forensic analysis, geissospermine is to be sought in vomiting matters, in the stomach, small and large intestines, liver, feces and urine. Pereirine is to be looked for in vomited matter, in the stomach, small intestimes, blood, liver and lungs.

7. The following reactions of pereirine are especially worthy of note:

a. The red color produced on adding to its solution in dilute sulphuric acid, a solution of potassium bi-chromate.

b. The red precipitate produced by gold chloride.

c. The non-appearance of a red color on warming with mercury nitrate.

Experiments on animals led to the following conclusions regarging the toxic properties of the alkaloids of the geissospermum:

1. Geissospermine and pereirine both produce death by asphyxia.

2. Geissospermine appears to be a more active poison than pereirine.

3. Geissospermine reduces the rate of respiration, and accelerates the pulse; pereirine accelerates both pulse and respiration.

4. Geissospermine increases the reflex excitability and has a stimulating influence upon the motor centers.

(Bochefontaine and Dr. Freitas (comptes Rend., lxxxv) found that geissospermine exercises no local irritant action when injected subcutaneously, that as a poison it acts by destroying the physiological properties of the central nervous grey matter.)

Notes on Pepsin, by A. Petit.

The property of coagulating milk is not a measure of the digestive activity of a sample of pepsin. It is probable that this property is due to the presence of a specific ferment distinct from that which effects the conversion of albuminoids into peptone. Coagulated albumen (white of egg) is generally adopted in England and Germany in determining the activity of a pepsin. I have endeavored to ascertain by experiment, first, what temperature is most favorable to the digestive action of pepsin on coagulated albumen; second, the effect of various acids, and third, the amount of acid which should be employed in making the test.

I have found that digestion goes on in acidified solutions at all temperatures from 30°C. (86°F.) to 80°C. (176°F.), but it reaches a maximum at 50°C. (122°F.).

Acetic and butyric acids (0.2 per cent. to 1.5 per cent. of the fluid) do not enable pepsin to dissolve coagulated albumen. Tartaric, lactic, and especially hydrochloric acids, however, have this property. Tartaric acid should be added in the proportion of one part to one hundred of fluid, lactic acid, from eight to 12 parts in one thousand. Hydrochloric acid produces the best effect when present in the proportion of 0.15 per cent. of the fluid (about two minims of the strong acid to a fluidounce) although digestion takes place in solutions containing as much as 0.3 per cent., or no more than 0.1 per cent. of absolute acid.

The temperature at which digestion takes place normally in the stomach, is about 40°C. Experiments in artificial digestion ought to be made at the same temperature. It may happen, in fact, that an acid solution which acts energetically upon albumen at 50° or 60°, may have little effect at 40°. Thus, lactic acid at the latter temperature dissolves very little coagulated albumen, even when present in relatively a large proportion. Since hydrochloric acid acts with facility at this temperature, we may conclude that the effective free acid of the stomach must be the hydrochloric. This view is confirmed by the researches of M. Richet, who has shown that hydrochloric acid is normally present in the gastric secretion, of which it forms about 0.2 per cent., while lactic acid is only accidentally present, as the result of fermentation of the contents of the stomach.

M. Richet has further pointed out the manner in which this fermentation interferes with the digestive process by substituting for hydrochloric acid, lactic acid, which has feeble digestive activity, or acetic or butyric acids which have none at all. If now these acids are neutralized by the exhibition of alkalies, hydrochloric acid is once more secreted, and the digestive process is enabled to go forward. We can understand how it happens that in such conditions,

the stomach already containing an excess of acid, we may yet administer hydrochloric acid with advantage.

Mode of making the test.—Put into a flask one ounce of water containing two minims of strong hydrochloric acid, two grains of the pepsin to be tested, and ninety grains of coagulated albumen. The coagulated albumen, from an egg which has been boiled half an hour, is divided best by passing it through a moderately fine sieve. The flask must be shaken every half hour, and if the pepsin be of good quality, the albumen will be dissolved in four or five hours.

Test by Fibrin.—Fibrin is to be preferred to coagulated albumen for the following reasons:

The phenomena presented during its digestion are of a very uniform and definite character, and the results of different experiments are readily comparable. The same conditions of time, temperament, and proportion of acid being observed, identical results may be expected in each repetition of the experiment.

The maximum activity of pepsin in the digestion of fibrin is manifested at a temperature of 50° C. (122° F). The same pepsin is about four times as active at 50° C. as at 40°. The proportion of hydrochloric acid most favorable to the digestion of fibrin is from two to five parts of absolute acid in one thousand. A much larger proportion of lactic or of tartaric acid is required, not less than two to five per cent., and even then the action is far less energetic than that of a solution containing 0.3 per cent. of hydrochloric acid.

In making an assay by this method, the proportion of hydrochloric acid should be that just named (4 minims of strong acid to the fluidounce). It is necessary to maintain the temperature within a range of one or two degrees at most. It is not sufficient that the fibrin be dissolved; it must also be peptonized, so that the solution is no longer precipitated by nitric acid. To test a sample of pepsin, put into each of a series of flasks one fluidounce of water, 4 minims of strong hydrochloric acid, and 90 grains of fibrin—dried by pressing between folds of blotting paper. Put into the first flask five grains, into the the second six, and so on up to ten grains (unless the value of the sample be already pretty nearly known). Maintain the flasks at a uniform temperature of 50° C. (122° F.) and shake them every half hour until the fibrin is completely dissolved; after that every hour, At the end of six hours test the solutions with nitric acid, added drop by drop. In the flasks containing the largest amount of pepsin there will be no cloud produced. Suppose the flask containing ten grains of pepsin shows no change, while that containing nine grains is slightly precipitated by the acid; we conclude that at 40° C. (the temperature of normal digestion) one grain of this pepsin will digest five grains of fibrin in twelve hours, or two and one-half grains in six hours, and this we may regard as a good pepsin. The fibrin employed in these experiments is obtained by washing the muscular tissue of a piece of mutton until it becomes white, and is preserved conveniently in pure glycerine. When so preserved it should be washed with plenty of cold water just before it is used.

Preparation of Pepsin.—After reviewing the various processes that have been adopted for the manufacture of pepsin, the author says: "The researches which I have pursued, now for more than ten years, on the digestive ferments, have convinced me that these principles, so easily alterable, ought not to be submitted to any complicated operations in the process of manufacture. My experiments have shown that even in the precipitation of pepsin by alcohol, a portion of its activity is lost.

My plan is to remove from the stomachs (of the pig, sheep or calf) the mucous membranes by means of a knife with a rounded point—to chop these as fine as possible, and macerate them in four times their volume of distilled water, containing five per cent. of alcohol. The mixture is stirred every half hour. After four hours' maceration the liquid is filtered and evaporated at a temperature not exceeding 40° C. (104° F.) in flat containers under a current of air, the residue constituting the pepsin.

[Abstract from an Inaugural Essay by Carl Thompson, candidate for degree of Master of Pharmacy.—University of Dorpat, Russia.]

Examination of a Fish Poison From West Africa.

This fish poison consists of portions of the stems of a plant indigenous in West Africa. It was in pieces about six inches long and from ⅝ to 1¼ in. in diameter. It has no smell or taste. Judging from the structure of the wood, it belongs to a papilionaceous plant, probably a species of Tephrosia, perhaps T. ichthyoneca, Bestol, which is native in Mozambique, or T. piscatoria Pers., native in the South Sea Islands. [The latter certainly is a smaller plant.—Trans.] The author sums up the results of his experiments as follows:

1. The fish poison is a papilionaceous plant which contains an active principle which affects fish very powerfully. The symptoms observed appear to be due to some influence excited upon the progress of oxidation in the blood, and of some reaction upon the red blood corpuscles. In moderate doses it appears to have have no effect upon frogs. The watery extract from 150 grains of the drug produced in a cat no symptoms of poisoning.

2. The active principle of the plant is soluble in water, alcohol, petroleum benzine, ether and chloroform.

3. The active principle is very easily decomposed in watery solution by heat; acids accelerate this decomposition.

4. In alcoholic solution the active principle is changed by heat even more rapidly than in the watery solution.

5. Sugar is not a product of this decomposition.

6. The substances resulting from this chemical change are not poisonous to fish.

7. The active principle of the plant can be obtained in a state of tolerable purity by exhausting with petroleum benzine, treating the extract after evaporation with water, and shaking the watery solution after filtration repeatedly with petroleum benzine, which will extract it from the watery solution.

8. The active principle is not precipitated by the general reagents for alkaloids, nor by lead acetate.

9. The active principle gives no characteristic color reactions with the mineral acids.

10. The active principle is not a glucoside, neither does it contain nitrogen.

Alcohol-Chloroform Narcosis.

Vachetta in Pisa first gives the patient médoc or Bourdeaux wine one-half hour before the chloroform

is administered. The quantity of wine must be sufficient to ward off paralysis of the heart, which is considered by those who have investigated the subject to be the chief danger of anæsthesia. It is best, according to Vachetta, to produce a profound narcosis at once, in major operations, and to keep this up with small quantities of chloroform. In the alcohol-chloroform narcosis, even in the deepest anæsthesia, may happen that the pulse grows slower, but never weaker. Nausea is observed much less frequently during than after narcosis. Here it would be wise to observe that narcosis by this or any other method is greatly hindered by attracting the patient's attention, by causing him to count, by talking, questioning, etc. Absolute quiet is best.—*Berlin Klin. Wochenschrift*, Jan. 1, 1883. A. Vachetta.

Carbolized Iodoform.

The corrigentia used at present to disguise the odor of iodoform are not satisfactory. For this reason it will be of interest to know that carbolic acid is an excellent corrigent. Add 0.05 carbolic acid to 10 grm. iodoform, and the odor is entirely covered, and it does not return even at the highest temperature. Two drops of ol. menth. pip., added to the powder, increases the pleasantness of the odor. In ointment this powder thus prepared is far preferable to the odor produced by tonka bean, bals. peruv., ol. carui, or ol. menth. alone. It is always advisable to rub up only so much of the acid carbol. in the powder as the above formula calls for, as a greater quantity would in many cases prove irritating.—*Berlin Klin. Wochenscrift*, No. 48, 1882. Carl Scherf.

Correspondence.

Diphtheria.

I am not a writer, but the article in the THERAPEUTIC GAZETTE for January, under "Diphtheria," calling attention to the controverted question, whether diphtheria is primarily a local or constitutional disease, is so directly opposed to my belief that I am prompted to say a few words in support of its being primarily a local affection.

You say that "the appearance of the exudation is a result and not a cause, and is only ocular evidence that the disease exists, giving warning that immediate and prompt measures should be taken to eradicate it from the blood." I claim that diphtheria is primarily a local affection, caused by contact of virus with a favorable soil for its development; and this virus does develop and produce its kind upon the mucous membrane of the throat. The false membrane is not an exudate, but is a growth accompanied with destruction or transformation of tissue at its site, and will involve the walls of blood-vessels (when in contact) and produce secondary symptoms and a constitutional disease by thus coming in contact with the blood. It is not related to scarlet fever, or typhoid fever, and has no twin sister except it is "chancre." Then you say, "holding to the opinion of its constitutional origin, our success in treatment has strengthened us in that view." I say that all the benefit you get in the "early stages" from your treatment is from the local effect—on the diseased part—of the remedies used. And, further, that diphtheria can be aborted and not allowed to go through your "several stages," by local treatment alone. And the simple reason why an extension to the larynx is so fatal, is because we lose the local effect of remedies, with the anatomical and physiological importance of the parts involved, added.

You have such statements as "in the early stages we believe in letting the throat alone;" "when the deposit has ceased to spread and its separation commenced"—showing that the disease is allowed to take its full course—"and the great principle in medication is to strengthen the system and to assist nature to throw off the disease." I fail to see the great principle. It is like the man with his "twa simples: whiles they die and whiles they live, 'tis all the will of Providence."

And now as to contagion: I think your conclusions are entirely at variance with the facts. We see the disease carried by infected persons, clothing, etc., into localities entirely separated from the disease. What are your prevailing atmospheric agencies and constitutional dyscrasias?

The rational theory or the demonstrable fact is, that the false membrane is the virus, or contains it; and particles of it are dislodged and carried to clothing, carpets, privies, etc., and while moist are not carried in the atmosphere, but when dry are ready to float and lodge on the inhaler's throat, and in a vigorous throat may be dislodged before commencing its work, but in a relaxed, catarrhal, or anemic throat are apt to remain and develop their kind.

And now, as a summary of my views, will say that diphtheria is primarily a local disease; can be cured by local treatment alone. It is a highly contagious disease, none being exempt. The virus resides in the false membrane, and can be collected and destroyed, so that those in contact will not have the disease.

THOMAS SHAW, M. D.

CHELSEA, Mich.

The Screw Worm, Alcohol and Opium, Sabbatia Campestris, etc.

Your valuable periodical notices a diversity of matters in its columns, and this leads me to suppose you will notice and be interested in a new pest for Kansas. During the last summer, stock here have been tormented with a dipterous insect, which is laid or blown in a wound or the blood in animals. It is, perhaps, at first an ovum. This soon incubates and produces a maggot or larva that is sharp pointed and ringed. In a short time it is said to bore into the animal and cause its death. Dogs and sheep are most tormented with the pest. It is called here a "screw worm," and is destroyed with calomel or carbolic acid, although it is quite difficult to kill. Several cases have occurred where people have been killed by the insect, or made seriously sick. I cannot give you the name of the dipter. The books are silent about it, and no one with whom I am associated knows its name. Texas is said to produce tarantulas, horned frogs and the screw worm every year. The musca Ceazar of Packard is as near the screw work as any dipter in the book. Men are attacked in the nostrils the same as the sheep with the grub.

The effects of prohibition here is good It lessens crime, lessens the taxes, lessens the number of drunkard's graves filled with our young men and old,

and lessens the "dead beats" in office. Opium eating is not increased one whit, but good order and quiet in the community are noticeable.

We have just passed through an uncommonly severe season of malaria. I have given persulphate of iron for flux of bowels this year with good effect.

For a general tonic in malarial poisoning, after the chills are cured, the sabbatia campestris, combined with sweet spirits of nitre, muriate of ammonia and leptandra is a grand restorative.

W. S. NEWLON, M. D.

OSWEGO, Kansas.

What is Wrong with our Emmenagogues?

In the September number of the THERAPEUTIC GAZETTE I noticed an article entitled, "What is Wrong with our Emmenagogues," and as the reader was invited to reply, I will avail myself of this opportunity to say a few words on the subject. I think my worthy colleague met the common fate of all who depend on emmenagogues as specific in their action, or who treat amenorrhœa as a disease. Amenorrhœa is only a symptom of some morbid condition either organic or functional in its nature, it matters not whether it is emansio mensium or suppressio mensium. This being the case I would not think of establishing a class of medicines and expecting one or all of this class to accomplish the desired result in all cases alike.

In amenorrhœa we have a symptom of an abnormal condition of some kind. Now it is the province of the physician to ascertain this condition, or in other words find out the cause of the amenorrhœa and by proper attention to the cause remove the symptom. From this standpoint we can readily see why iron will act as an emmenagogue in one case and not in another, why we gain very good results in some cases of menorrhagia from the administration of iron. It seems to me that this view of amenorrhœa and the action of the (so-called) emmenagogues, explain fully the seeming paradoxical fact that medicines possessing opposite virtues will best subserve our ends in different cases. In Dr. T. G. Thomas's work on the "Diseases of Women" he gives nineteen (19) different abnormal conditions in which amenorrhœa occurs as a symptom. Of course it would be very short-sighted to expect iron, sabina, ergot or any other remedy to meet the indications alike in all these varied cases. The writer of the aforesaid article spoke of failing with ergot. Now I do not expect ergot to establish the menstrual flow in all cases, but in some cases it is a useful remedy and perhaps the uncertainty in the effect of the remedy (in properly chosen cases) is due in a great measure to the method of administration. Ergot being a fungoid growth is it not probable that in most cases the process of digestion destroys the efficacy of the drug when given per os. This seems to me to be the fact for I have gained more uniform results by the hypodermic administration of liquor ergotæ purificatus than by any other method of administration.

G. L. STONE, M. D.

IOWA POINT, Kan.

The Opium Habit and Alcohol—Veratrum Viride in Opium Poisoning.

On page 419 of the November number of the GAZETTE you invite the relation of experience as to the substitution of the opium habit for that of alcohol. I never lived where there was a prohibition law till 1869, when I went to the Indian Territory, where I lived twelve years among the Cherokees. The Indians themselves have very stringent laws against the introduction or vending of alcoholic or malt liquors, and the United States "Intercourse law" makes it a penitentiary offence to sell even one quart. I knew nothing of the opium habit till I went there, but I soon was thoroughly educated in it. Of the half-breeds, or mixed bloods, many use the drug regularly, while others only use it when they fail to get spirits. Only those who have witnessed the effects of the habit can realize how disgusting it is. The Indian as well as the white man loves a stimulant and takes the best he can get, and when spirits are not to be had he uses that which is scarcely less objectionable. I knew one old man there who when "sobering up" would use 3 j. of morphine a day. The first time I saw him swallow thirty grains of morphine at once, I thought surely he would be a dead man before night, but he is still living after twelve years.

How many have tried veratrum viride as an antidote in morphine poisoning? I have and with success. It is an antidote which deserves a trial.

W. A. REESE, M. D.

EUREKA SPRINGS, Ark.

Cheken.

The enclosed extract from a letter from one of my patients, residing 65 miles west, will interest you, as the medicine she refers to is "cheken." My prescription was:

℞ Fluid ext. cheken, ʒ jss
Molasses, ʒ jss
Water, ʒ j.

M. Sig. A teaspoonful every 3 hours during the day, and, if disturbed by coughing, in the night:

"NEVADA, Iowa, Feb. 19, 1883.

My general health is much better than when you saw me last fall, and the first medicine you gave me did more to arouse my clogged system to action, than all I have taken before. Cough has been gradually growing better ever since, and I am like a new person.

(Signed) MARY M. ALLEN."

The first few doses acted like a charm, giving her immunity from coughing for several hours at a time. When I first saw her, she had been coughing incessantly for 48 hours. From the effects I have observed in this and similar cases, I look upon it as a most decided tonic and expectorant, and, properly used, excellent results can be obtained from it. I find it not so efficacious in larger doses, and molasses is a better medium than syr. simp. although it is far preferable to "drop" the doses as required.

WM. EVANS, M. D.

BELLE PLAINE, Iowa.

An Interesting Legal Question.

In case a surgeon has a case which turns out badly, he is subject to a suit for "malpractice." Now, if a surgeon has a case, *e. g.*, of fractured thigh, and because of pain, etc., the parents or others take off the perineal band (counter extension), and the absorbents

take up the callus, should not said parents or others be subject to penalty by law for such interference? The law now stands that the evidence to that effect clears the surgeon. But in the opinion of your subscriber, a suit for damages "would lie" in the above case. I would be glad of your opinion.

S. H.

[Our correspondent's query is an interesting one. We are, of course, not qualified to give an opinion on its legal merits. It would seem necessary, however, on general principles, that the surgeon, in the case supposed, should be required to prove the damage which his reputation has sustained, before he could recover for it. It would, we imagine, be a rather difficult matter to convince a jury that such damage has a monetary value. A knowledge of the fact of disobedience of the surgeon's injunction would exonerate him from blame or action for malpractice, and this, we think, is the only salve which he would be likely to get for his wounded reputation. It is thus scarcely necessary, under such circumstances, to discuss the abstract principle of right.—ED. THERAPEUTIC GAZETTE.]

Viburnum Prunifolium in a Nostrum.

I enclose an illustrated advertisement of a "Female Bitters," clipped from a newspaper circulated among the people of this section. The extensive employment of the nostrum, with good results in some instances, led to my investigation of it. From this investigation I am satisfied that the active constituent is viburnum prunifolium. I am furthermore convinced that its association with other ingredients in the compound is not an advantage, for I can secure equally favorable, if not better results by the administration of the simple fluid extract. By the employment of the latter it is also possible to add such agents as the peculiarities of the individual case may demand, which is something the physician cannot, of course, do when the nostrum is taken.

The THERAPEUTIC GAZETTE is doing noble and effective work in its fight against this class of impositions. It is, indeed, waging a warfare in the interests of legitimate medicine, and the profession should come boldly forward and be as Aarons and Hurs, holding up its hands until the enemy is vanquished.

R. L. HINTON, M. D.

PRESCOTT, Ark.

Wanted, A Cure for Neuralgia.

I have several cases of facial neuralgia, including the supraorbital, infraorbital and inferior dental nerus, which fail to yield to any treatment I can find in any of our medical works or journals. Can you, through your valuable columns, suggest a remedy which will come as near a specific as can be, or ask the aid of the medical profession at large for such a remedy? I cannot trace the cause to decayed teeth or to any constitutional disturbance. There is no rheumatic taint. It seems peculiar to this locality, which is high and well drained and as free from malarial influences as any place on the American continent. The functions of the prima-viæ are perfect.

J. B. MARCHAND, M. D.

MONTICELLO, Mo.

[We owe Dr. Marchand an apology for not inserting his communication earlier. It was inadvertently mislaid. The question is an ever pertinent one. Neuralgia has been called the prayer of the nerve for healthy blood, and lacking this all means for its relief must fail. But we may have idiopathic neuralgia with no appreciable defect in the blood. The specific remedy for this form is yet to be discovered. Nitroglycerine and tonga are the latest aspirants to the position, and we would suggest their trial in the cases referred to.—EDS. THER. GAZETTE.]

Coca in the Opium Habit.

G. H. W., of this place, was so addicted to the use of morphia as to be quite incapacitated for business. For four years he had taken morphia regularly three times a day and was constantly under its influence. I commenced treating him November 16, with coca, giving him twenty grains of the solid extract in the morning, ten at noon and ten at night. His nervous irritability following the suspension of the morphia was so great that I was obliged, for four successive nights after commencing treatment, to give him ¼ grain doses of the opiate. After this the bromide of potassium was given in twenty-grain doses at bedtime to allay nervous excitement. On the 24th of the month his desire for morphia had quite abated.

December 3d.—Says he is cured and wants no more medicine.

December 8th.—Has gone to work at stone cutting.

January 23.—Discharged cured.

C. FARNSWORTH, M. D.

SOUTH HARDWICK, Vt.

Lippia Mexicana in Asthma.

Having suffered from asthma for many years, I take the liberty of referring to Dr. George Herschell's case related in the THERAPEUTIC GAZETTE for November last, page 407. My own experience with yerba santa was nearly identical. Yerba santa is a stimulating expectorant and should never be used excepting in cases requiring such. Dr. Johnson, in Naphey's Therapeutics, is correct. There is a remedy exactly suited to this class of cases, and that is the concentrated tincture of lippia Mexicana, prepared by P., D. & Co. If Dr. H. had used lippia Mexicana instead of eriodyction, I dare say his patient would have been relieved. In some severe cases of this kind it may be necessary to use to add a little ipecac. At any rate, I hope he will try the lippia with the grindelia robusta, when he has another such case, and report result.

WM. A. CAVENESS, M. D.

JACKSONVILLE, TEXAS.

Quinine in Pneumonia.

In your review of Alonzo B. Palmer's treatise, you are right in your disagreement with him in the use of quinine in the inflammatory stage of pneumonia or croupous pneumonia. Twenty-five years' practice in this malarial country is proof sufficient for me that quinine is not a primary agent, but is indicated after inflammation is subdued.

P. S. WEIDMAN, M. D.

MARINE, ILL.

The Therapeutic Gazette

WILLIAM BRODIE, M. D., Editor.

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The Pharmacopœia of 1880.

III. ABSTRACTS.

ALMOST the first title that meets the eye on opening the new pharmacopœia is one whose unfamiliar sound excites curiosity and seems to challenge criticism. Abstractum Aconiti—abstract of aconite—what may that be? The name certainly is not self-explanatory. Evidently, however, it has some relationship with the familiar term extract, but more than this it is vain to try to guess. It is not, however, the office of a pharmacopœia to introduce innovations, and we must therefore expect to find under the disguise of this new name some old acquaintance. It is evident, as we turn page after page, that the family to which he belongs is a large one. The list of those that have secured official recognition numbers not less than eleven, and there seems to be no reason why it should not be indefinitely extended.

While they are in one sense old acquaintances, it must be admitted that in their present attenuated condition their new name was scarcely needed to render their disguise perfect. They are, in fact, the ghosts of a class of preparations which we have formerly known under the names of powdered extracts and concentrations. The word ghosts we have used advisedly. A concentration, if it have any *raison d'être*, finds it in the circumstance from which it takes its name, viz., that its dose is small as compared with that of the drug from which it is obtained. The powdered extract is assumed to be also a concentrated preparation, although not more so than the ordinary solid extract. The substitute for these offered by the pharmacopœia in the "abstract" is only twice as strong as the crude drug itself; ordinary solid extracts are generally at least three or four times as strong as the drug from which they are derived, unless the active principle is one which is not readily retained in an extract.

It will be observed that several of the "abstracts" of the new pharmacopœia represent drugs belonging precisely to this class. The activity of aconite, belladonna, conium, hyoscyamus and valerian is liable to suffer deterioration in the processes employed for obtaining even the ordinary solid extract and still more when an attempt is made to obtain from them a dry powdered extract or concentration. The "abstracts" are prepared with such precaution in the evaporation that the danger of deterioration is reduced to a minimum, and this is the one feature of merit they possess. It may be safely predicted, however, that they will not find general favor in their present form. Their uniformity in strength, as compared with the crude drugs they represent, would be a point in their favor if they could have been made as much as five or ten times as strong as the drug. But since the facility of obtaining concentrated preparations varies greatly with different drugs, and since it is desirable in most cases to have these preparations as highly concentrated as the nature of the drug will allow, this consideration becomes one of minor importance. Some definite relationship, however, ought to be established with existing preparations of the respective drugs, and the solid extract is that which is obviously the most appropriate.

Glancing over the list of officinal "abstracts," we confess ourselves unable to comprehend why these particular drugs should have been selected for this particular treatment. In almost every instance a preparation at least twice as strong could have been made by a similar manipulation, and in several instances officinal preparations already exist which can be dispensed in the form of powder, and which are much more concentrated than the "abstracts." Aconite is never administered in powder—for obvious reasons. If prescribed in pills or in capsules, the fluid extract may be employed to better advantage than the "abstract." Most pharmacists indeed will prepare the "abstract" extemporaneously in case it should ever be prescribed, by evaporating the requisite amount of fluid extract, and if reasonable precautions are observed in the evaporation there can be no objection to this substitution. The prescriber himself may, however, better order the fluid extract himself, or the powdered root if he prefer it. The "abstracts" of belladonna, henbane, foxglove and conium seem to possess no advantage whatever over the respective extracts, except that, being in the form of dry powders, they may be more readily weighed out by the dispenser—they certainly will very seldom be prescribed in powders—and this trifling advantage is more than compensated by their comparative bulkiness.

The "abstracts" of nux vomica and of ignatia are unnecessary additions to the materia medica, since the extracts of these drugs can be easily brought into the form of a powder, representing the drug in the proportion of one to ten or twelve.

It is safe to say that the "abstract" of podophyllum will never be prescribed, since we have already in the resin of podophyllum, a preparation ten times as strong and much more uniform in composition. It is difficult to see why an "abstract" of jalap was offered in place of the old officinal extract, and it is equally hard to comprehend why a simple alcoholic extract should not have replaced the old preparation —if indeed any solid preparation of the drug were needed in addition to the officinal resin.

The abstract of senega is also a substitute for a dis-

carded solid extract, and scarcely needed to be re-christened.

It must be confessed on the whole that the object which the committee of revision seem to have had in view in introducing this class of preparations has not been realized. But failure is often the first step towards success; we can now see more clearly than ever what are the objects to be especially sought, and can appreciate better than ever what are the difficulties to be overcome. The problem is one to which manufacturers have already given a more or less satisfactory solution in the powdered extracts which are already so largely employed. A demand certainly exists for this class of preparations; it seems as though the proper course to be pursued in such a case by those who establish the authoritative code in pharmacy, is to give manufacturers liberty to employ such processes as may prove in their experience most profitable, but to guard the character of the product by rigid tests. It is true that the majority of pharmacists would not apply the tests, but the manufacturers whose goods were able to stand the tests would find means to acquaint dispensers and prescribers with the shortcomings of their unscrupulous rivals, and appeal to the tests of the pharmacopœia will convince men even in spite of a strong bias of prejudice or even of self interest. Certain of the powdered extracts should be unconditionally condemned as pharmaceutical impossibilities; that of cannabis indica is an instance in point. It would then rest with manufacturers to show that the preparations offered under that name really possessed the properties attributed to them on their labels. In the case of drugs like henbane and hemlock, a certain proportion of hyoscyamine and coniine should be stated as the lowest limit admissible, and a practical method of assay should be given.

The same thing ought to be done in the case of such concentrations as are of real value, and of all representing powerful drugs, whether of value or not.

A young physician, who has learned something about the uses of belladonna, finds that there is a concentrated preparation of the drug which is in the form of a permanent, dry powder, four times as strong as the solid extract. He cannot find such a thing described in the pharmacopœia, but the druggists keep it, and he prescribes it—sometimes with satisfactory results—sometimes to be wholly disappointed in the expected effects.

The fact is, that in absence of any authoritative standard, each manufactucer has used his own judgment not only in selecting his process, but also in adjusting the strength of the preparation which he labels atropin. The manufacturers cannot be greatly blamed if under these circumstances there exist discrepancies in their statements regarding the dose of atropin, and still more important discrepancies in the actual strength of the preparation so named. If the pharmacopœia gave place to no more than the name, with the statement that this concentration contains 5 per cent. of atropine, one important step would be taken toward bringing order out of the present chaos. In the case of this particular concentration, it would not be out of place in a work like the pharmacopœia to to call attention to the confusion likely to arise from the similarity of the name to one already appropriated to the alkaloid contained in the drug, and even to substitute one not open to the same objection. It would not be necessary to give any process for preparing products of this class. In case the existing concentrations do not correspond in strength with the claims made for them, it is only right that some impartial judge should, in the name of science, pronounce their sentence.

A paragraph something like the following would, perhaps, comprise, in regard to the concentration which has been mentioned, all that need be said:

"Belladonnin—commonly called atropin, should contain 5 per cent. of atropine. None should be accepted which does not bear on the label the guaranty of the manufacturers to this effect."

We are aware that the number of irregular medicaments which enjoy in one circle or another of medical practice a transient popularity—fostered generally by some manufacturing firm—is legion, but few of them are of sufficient importance to warrant any waste of precious space. Concentrations, however, and powdered extracts of important standard drugs come legitimately under the jurisdiction of the pharmacopœia and where it cannot approve it seems to us clearly its duty to condemn.

Koch's Bacillus and its Lessons.

THE announcement by Koch of the discovery of a bacillus, to whose entrance into the system specific tuberculosis is due, is likely to prove one of the most important in the history of medicine. It is true the existence of such a parasite has been quite strongly combatted by authority which commands respect, but a careful weighing of the evidence, *pro et con*, must, we think, satisfy the judicial mind that Koch has made out his case and that the tubercle-bacillus is one of the facts of science. Regarded purely as a theory it certainly furnishes a satisfactory explanation of the pathological conditions of which it is declared to be the immediate cause.

Koch's experiments,as reported,are exceedingly interesting as well as convincing, the latter property being due to the careful attention to detail and the elimination of every conceivable factor likely to vitiate results. Herein they differ from the brilliant generalizations of Pasteur. The latter, for instance, has not in every instance demonstrated the existence of the bacteria which he has assumed. Having isolated the specific cause of charbon, or splenic fever, in cattle and sheep he assumes, but does not demonstrate, the existence of an analogous cause in such diseases as scarlatina, diphtheria, yellow fever, etc. It is true the grounds for such assumption are very conclusive, but it is not truly scientific to assume. Koch has pointed out that in employing the secretions found in dead, for introduction into living animals with a view to reproducing the fatal disease, Pasteur has committed the error of introducing with his hypothetical bacillus septic material and the cadaveric alkaloids, which latter it is well known are of a very deadly nature. In his experiments he (Koch) has assumed nothing but has clearly isolated the bacilli and by their introduction into other animals has produced an affection which cannot be duplicated by inoculation with any other material, even though it be of a very septic nature. Pasteur, moreover, in selecting his animals has not been careful to first demonstrate that the animals experimented with have in every instance been susceptible to the specific dis-

ease sought to be propagated, and not being himself a physician has not been qualified to determine whether the resulting affection has been the true disease, or pyæmia or septicæmia. Koch has, as we have said, avoided all these elements of error.

Granted that the tubercle bacillus is a fact, what are we to do with it? On the answer to this question rests the future of the treatment of consumption, prophylactic and curative, and the ingenuity of man will be directed both to the prevention of its entrance into the system, and to its destruction in cases in which it has inadvertently, or in spite of prophylactic measures found an entrance. When the means to these ends have been discovered consumption will occur only as a result of negligence, and will prove fatal only as a result of improper or insufficient treatment. When these means shall have been discovered medicine will have purged itself of the greatest of its opprobria.

Although the means of prophylaxis and cure, above referred to, are still veiled from our eyes (for we have faith in their existence) the discovery of the bacillus, and of its nature has already directed an intelligent treatment of consumption. It is fair to assume that it, like the germs of other diseases, is more or less constantly present in every community, floating about, as it were, seeking an opportunity to enter into systems in which it may propagate and work its mischief. It follows then that something more than the bacillus is necessary to produce consumption; it must have an appropriate soil. That soil, as is the soil in which other germs of disease take root and bring forth fruit, some thirty fold and some sixty fold and some an hundred fold, is characterized by an absence of the power of vital resistance. We know that the local lesion is by no means the first symptom of the affection which developes into full-blown tuberculosis. Preceding this there are dyspeptic disturbances, loss of appetite, emaciation and a lowering of the vital forces. While these may not properly be a part of the consumption, they are what prepare the soil for the growth of the germ. It is fair to assume that the air-passages of those brought in contact with tuberculous patients frequently contain bacilli, which being met at the portals by the vital resistance furnished by the system in its average health, fail to effect an entrance, degenerate and are thrown off. It would follow, therefore; that the maintenance of the system at its full standard of vitality is the most effective prophylaxis against the ingress of the bacillus, which, when it gains admission, acts as a foreign body and sets up the circumscribed inflammation which constitutes solidification, and which in turn breaking down causes the tuberculous cavity.

The discovery of the tubercle-bacillus antagonizes the theory of the hereditary nature of consumption *per se*. While in very many instances the disease appears to run in families, it will hereafter be more correct to say that the tendency to it is hereditary, or rather that the weakened power of resistance to the entrance of the bacillus is transmitted.

The etiology of consumption being thus referred to a specific cause the result must be to strew the shores with additional wrecks of theories of treatment. From Salisbury's rare beef to Churchill's hypophosphites the therapeutic measures are legion, for they are many, and these must all give way before the agent yet to be discovered, which shall have the power of entering the system, and engaging the bacillus in combat lay it low. The treatment of consumption by means of an atmosphere holding germicides in suspension must, in the nature of the case, attract renewed attention through the discovery of Koch's bacillus. It would seem that in this direction lies the means which shall enable us to save the hundreds of thousands of lives which are annually lost from consumptfon. Many of the agents now employed will doubtless remain useful as means for combatting symptoms, but the curative agent proper will be a germicide. Koch has covered himself with a fame scarcely secondary to that which surrounds the name of Jenner, but the blaze of glory and fame immortal awaits him who discovers the agent which shall ferret out the microscopic bacillus in its fastnesses in the tissue of the human lungs, and giving it battle shall destroy it root and branch.

Collective Investigation of Diphtheria.

"HAVING passed many years in hospital and private practice, I have come to see that experience gained in the latter is necessary for the correction of that acquired in the former."—*Sir William Gull.* "If I may impute a fault to those who are admirable in all the ordinary work of life, I would suggest how large a quantity of knowledge lies scattered and lost to the scientific world in the charge of those who are in large practice, and *who record nothing.*"—*Sir James Paget.*

Pursuant to the plan suggested under this heading in our last, we submit herewith the following questions on the subject of diphtheria:

1. What is your opinion in regard to the local or constitutional origin of diphtheria?
2. What clinical facts, in your own experience, lead you to form your opinion?
3. What is your opinion as to the contagiousness of diphtheria?
4. What facts in your experience bearing on this question?
5. What microscopical examination, if any, have you made of the diphtheritic membrane?
6. What measures, if any, have you adopted by way of prophylaxis, and what success has attended these measures?
7. What local treatment have you found most efficacious?
8. What general treatment have you found most efficacious?

In the replies to the above questions we are particularly desirous that the personal experience of the physician be drawn on, or, in other words, that opinions as expressed in medical works be entirely ignored. If the 15,000 readers of the THERAPEUTIC GAZETTE will interest themselves in sending us replies to these questions, we believe that the result will throw more light on the nature and treatment of diphtheria than has been shed for very many years. On receipt of a sufficient number of replies to justify the labor, we shall classify the information thus received, and will furnish a careful analysis of it, giving each contributor due credit for his opinions as they are reproduced.

We sincerely hope that this venture may meet with proper encouragement, as it is our design to investigate other diseases in a similar manner. We

assume that of our 15,000 readers not over 10 per cent. are in the habit of contributing the results of their experience, through the medical journals, for the benefit of their fellow practitioners. The probable reasons for their neglect in this matter were hinted at in our last, when we also endeavored to expose their fallacy. If we succeed through the plan here proposed in drawing from the vast storehouses of experience a tithe of the material which has never seen the light of day, our effort will not have been in vain. But there exists no valid reason why but a tithe should be contributed to the end in view. We do not ask or desire anything of the nature of elaborate essays. We desire rather the short, crisp record of experiences. These are more valuable for our purpose, and will make the smallest demand on the time of contributors. Let no one who has a fact to contribute be deterred by misgivings in regard to the grammatical construction of his sentences, by his chirography, or even by his orthography. These latter are matters altogether too insignificant to merit consideration in a matter of this nature. Let us have a general response to the questions which we have propounded and thus give us an opportunity to test a plan which we feel very confident will redound to the benefit of all. We hope to receive the replies on or before April 15th.

National Proprietor's Protective Association.

THE nostrum manufacturers of this country have just perfected an organization under the above name. Its object is mutual protection against the inroads which they have commenced to feel are being made upon their assumed rights. The question of "right" with these individuals is synonymous with that of self-interest, and the fact that they complain of invasion of the former is tantamount to a declaration that there is an appreciable falling off in the sale of their nostrums. The ill-concealed object of their association is to inquire more closely into the cause of this falling off and to devise ways and means to prevent its increase. In the language of one of its organs: "The accumulation of a fund by means of proportionate tax upon each member to be devoted to the protection of all, will prove a desideratum which none, with the possible exception of the very old and wealthy proprietors, can fail to appreciate."

We will be pardoned for indulging in a little self-gratulation on the formation of this association. It is the greatest compliment which our natural enemies could pay us. When we entered on our fight, some four years ago, against the monstrous outrage on both science and humanity, these gentry, in all the arrogance of their wealth and hitherto undisputed power, pooh-poohed the puny efforts of "the obscure western journal," which in the sublimity of their contempt they persistently referred to as an advertising sheet. We have for some time been receiving intimations that "the galled jade" has been "wincing," and this organization for offense and defense, the necessity of which would four years ago have been scouted, is the surest indication of the fact that our shot has penetrated the defenses of the ring, and that the nostrum mongers have been forced to recognize the fact that the stripling David with his sling and pebble of truth, is mightier than Goliath clad in his ponderous armor of error.

We apprehend that that branch of the Proprietor's Protective Association which comprises those manufacturers of nostrums with copyrighted names, who seek first to gain a foothold for their wares among the profession, have commenced to discover the fact that medical men no longer submit as passively as of yore, to be made cat's paws of. The mask of their hypocrisy has been torn off, and their trick of semi-professional tactics, through which the certificates of physicians were utilized to secure the introduction of their nostrums to the public, has been fully exposed. The Bromidia, and the Iodia, and the Hydroleine, and the Listerine, and the Bromo-Chloralum makers, and the other quasi professionals of the same kidney, have come to realize that things are not as they were, and that they are beginning to be relegated by the better class of the medical profession, to their proper sphere among patent medicine men. The time is coming when "pharmacists" of this class will, with all their native assurance, scarcely have the effrontery to solicit professional support, and the fund of their Protective Association will not avail to postpone the inevitable. The profession are being aroused to the iniquity of the practices of these harpies, who find it a much more difficult task than it was a very few years ago to pull the wool over the eyes of their victims. Let the good work go on!

The Name of an Article Not Property.

AT a meeting of the National Proprietors' Protective Association, held on the 18th of last month, it was resolved that it is necessary in the interests of the proprietary medicine trade to take steps towards securing more definite legislation than exists, on the subject of the proprietary right to the names of nostrums. A draft of an iron-clad law was submitted and received the unanimous approval of the meeting. This law defines "a trade-mark to be any name, word, device, design, emblem or mark of any sort adopted and issued by the maker, owner or seller of an article to indicate that the article was imported, made, packed or sold by him." The penalty attached to the use of such a trade-mark or of any imitation thereof, is imprisonment of not less than one nor more than five years. It is proposed to introduce this law into the various state legislatures "so that there may be a uniform law throughout the country on the subject of trade-marks."

This plan of the wily proprietary medicine men is a very ingenious one, but we would take the liberty of suggesting to them that "the best laid schemes o' mice and men, gang aft agley." Their cheek in thus seeking to secure a proprietary interest in the English language commands admiration because of its very stupendousness. There is no fact better established in law than that the name of an article, as being descriptive of the thing, is part of the language, and therefore, common property. "Tobacco" as the name of a "weed" belongs to the world, and neither Bagley nor Lorillard, nor any manufacturer can appropriate it. The prefixes of "Mayflower" or "Climax" or "Tin Tag," as descriptive of the kind of tobacco sold are also common property, the general impression to the contrary notwithstanding. The names Bagley and Lorillard, are, however, not common property and the firm who might manufacture "Mayflower Tobacco" or "Climax Tobacco" with impunity, would be liable to the penalty of the law should it manufacture "Bagley's Mayflower

Tobacco" or "Lorillard's Climax Tobacco," without Bagley's or Lorillard's consent. The names of medicines furnish no exception to this fundamental principle of law. "Bromidia," "Iodia," "Listerine," "Ingluvin," "Hydroleine," etc., being names of compounds of medicinal preparations, however scientific or unscientific such preparations may be, are common property, and the law does not prevent any one from manufacturing these under the only name by which they are known. Battle, Lambert, Warner, etc., are, however, proper names and Battle's Bromidia, Lambert's Listerine, Warner's Ingluvin, Kidder & Laird's Hydroleine, as especial designations of the brands of manufacture of the articles named, are legitimate private property. We do not object, and never have objected, to this legitimate protection. It is the best premium which can be put on honesty in manufacture, but it creates none of that monopoly which fosters dishonesty. Such protection favors that healthy competition which results in the public good, but the interpretation which the proprietary medicine men would give it favors sophistication and adulteration, while at the same time it paralyzes progress. If Parke, Davis & Co., or E. R. Squibb, or Powers & Weightman, by unusual care and skill in the manufacture of say fluid extracts, or chloroform, or quinine, produce a superior class of goods, the attachment of their names to such goods is legitimate protection. But any claims which these firms might set up to the exclusive right to "make, own, sell, import or pack," fluid extracts, chloroform or quinine would of course be ridiculous in the extreme. The case could not be a whit altered by the fact that either of these firms might coin a name for any particular product. That name as describing the thing manufactured must always, in law and in equity, be a contribution to the vocabulary of the language. Our friends, the nostrum "makers, importers, vendors and packers," usually endowed with so much of the wisdom of the serpent, will find when they run against this legal snag how egregiously their assumption has allowed them to blunder.

The Index Medicus.

WE are in receipt of a circular from the publisher of this monthly periodical, which has just entered upon its fifth volume. The circular is a startling revelation. It publishes the list of subscribers to the journal, and on counting them up we find that the number resident in this country aggregates less than four hundred. That among the seventy odd thousand practitioners of medicine in these United States not more than this number contribute by their subscriptions to the support of this work, so positively necessary to the advancement of medicine and medical literature, is a fact which arouses serious thought and demands serious consideration. But startling as is the showing as a whole, it is when we look at the list as it appertains to Michigan, that we are filled with a feeling nigh akin to shame, for (tell it not in Gath!) there are but two subscribers to the work in this great state—a state the medical profession of which has not allowed itself to be rated beneath that of any other state. It was a cruel act of the publisher, by publishing his list, to thus shatter our idol. In the number of its subscribers to the Index Medicus, Michigan ranks with Colorado, Florida, Minnesota, Wisconsin, Tennessee and Canada! Massachusetts, New York and Pennsylvania have done well, furnishing indeed more subscribers than all the other states combined.

The Index Medicus is not such a journal as the general profession is expected to subscribe for, but it should have not less than at least fifty subscribers in Michigan, and the whole number in the United States should not be less than three thousand. With a smaller list than this the journal cannot be published at a proper profit. The publisher sunk considerable capital during the first two years, and would have discontinued the publication had not a guarantee been made him against further loss, by a number of generous members of the profession. It would be too much to expect that this guarantee should continue indefinitely, and an appeal is once more made to the great body of the profession. If physicians will not subscribe themselves, as individuals, let them in the interests of their profession, at least have the medical societies and libraries to which they are attached subscribe. A single subscription from each medical society in the United States would suffice to ensure the publisher against loss. This is a matter in which each physician should have a personal interest, and we sincerely hope that this last appeal of the publisher will not be allowed to pass unheeded. The suspension of the Index Medicus would indeed be a calamity.

Subscription price, $6. Address, F. Leypoldt, 13 and 15 Park Row, New York.

Louisiana in Line.

WE have received a circular notice of the coming annual meeting of the Louisiana State Pharmaceutical Association, which will convene at New Orleans, on Monday, April 2d. Our attention is arrested by the following paragraph:

"All Patent Medicines, Secret Remedies and Copyrighted Articles, the working formula of which is not printed on the labels, shall be *excluded* from the Exhibition."

We hail this declaration of the Pharmaceutical Association of Louisiana as an encouraging omen. It is but another manifestation of the reaction which has been working up during the past two or three years against an iniquitous abuse which the profession of pharmacy, in common with the profession of medicine, has, through default, permitted to attain colossal dimensions. It is, moreover, a somewhat significant fact that the pharmaceutical profession has taken the lead in the direction of reforming this abuse. It is, perhaps, but natural that pharmacists should have done so. We would not intimate by this that they are more jealous of professional honor or dignity than are physicians, but from their calling they are better situated to appreciate the evils which follow in the wake of the abuse. While it seriously affects physicians' incomes, it strikes at the very root of the science of pharmacy, and its tendency is to degenerate the pharmacist into a mere vendor of ready-made compounds, removing from his calling everything of a professional nature and making of him simply a salesman.

There is, however, one portion of the paragraph copied from this Louisiana declaration of rights, which is open to criticism, from the standpoint of the medical code, and that is the portion which impliedly

admits copyrighted articles whose formulæ are published. This is open to criticism on two grounds: 1st, the copyright itself, which seeks to make the article copyrighted exclusive property, is in direct violation of an express declaration of the code; and in the second place, its effect is to wink at what is, in the majority of instances, a piece of gross deception. Has a member of the Louisiana Pharmaceutical Association ever endeavored to compound according to the published formula any one of the nostrums on the market? Has he, for instance, ever undertaken to thus prepare bromidia, or iodia, or hydroleine, or any of the others which he may pick up at random? Let him thus test the honesty of the manfacturers of these articles and at the coming meeting of his association, he will ask for legislation which will place them without the pale of reputable pharmacists.

Certificates to Copyrighted Compounds.

OUR contemporary, the Alienist and Neurologist, has perpetrated a piece of grim humor, which fulfills one of the conditions of true wit, in that it has in it a strong element of truth. Having been requested by a directory publisher to subscribe for a list of physicians' addresses, it declines, alleging as a reason the fact that it can find the names of all the first-class physicians of the country whose names are not on its subscription list, on the published certificates to the efficacy of copyrighted medicines. It is truly a sad commentary on that portion of the profession which has set itself apart as the very salt of the medical earth, that the names of such a very considerable portion of it may be thus found in a connection so pointedly condemned by the instrument to which they have pledged their allegiance, to wit, the Code of Ethics of the American Medical Association. The appearance of the name of a member of this association attached to a certificate attesting the value of a compound whose preparation is sought to be restricted to a particular manufacturer, through the device of a patent or copyrighted trademark, is a piece of the most glaring stultification, to characterize it by no harsher but not less fitting name. It is a most glaring anomaly that such practice is suffered to go unrebuked by the constituted authority. In the discussions during the past year on the action of the New York State Medical Society in removing the barriers which forbade consultation with irregular practitioners, some of the very men whose names are thus advertised as endorsing quackish compounds, were most clarion-voiced in denunciation of this action as revolutionary of the principles so grandly enunciated by the code. It seems scarcely credible that these gentlemen have ever read the code which they have been so forward to champion. It would certainly be most charitable to assume that they never have.

Unethical Codists.

"EQUALLY derogatory to professional character is it for a physician to hold a patent for any surgical instrument or medicine; or to dispense a secret nostrum, whether it be the composition or exclusive property of himself or of others. * * * * * It is also reprehensible for physicians to give certificates attesting the efficacy of patent or secret medicines, or in any way to promote the use of them."—*Code of Ethics of the American Medical Association, Art.* I., § 5, *Duties for Support of Professional Character.*

We have before us a copy of an exchange in which is the advertisement of a "nostrum," copyrighted for the sole purpose of making it the "exclusive property of others," to which are attached "certificates attesting the efficacy," by professors holding chairs in the following medical colleges: University of Maryland, University of the City of New York, Medical College of Ohio, Chicago Medical College, College of Physicians and Surgeons of Baltimore, University of Louisville, Baltimore Medical College, Kentucky School of Medicine, St. Louis Medical College, Missouri Medical College, Medical Department Columbia University, College of Physicians and Surgeons, New York, Rush Medical College, Medical Department University of Georgetown, Woman's Medical College, Chicago, Hospital College, Louisville, Medical Department of the University of Tennessee and Evansville Medical College.

We would not accuse these gentlemen of wilfully violating the code. A personal acquaintance with many of them tends to prevent any such suspicion. How is it, then, that they have come to thus openly stultify themselves? We can only attribute their conduct to lack of proper familiarity with the code, and to their easy good nature which has allowed them to be wheedled into attaching their names through the suavity or importunity of the gentlemen who have thus utilized them. This is not as it should be and it is high time that the American Medical Association emphasize the clause of its code which is being thus flagrantly violated.

[By request we insert the following.—Ed.]

The Tri-State Medical Society.

ONE of the most important medical events of the year will be the meeting of the Tri-State Medical Society, at Indianapolis in September. Already the work for this convention is far advanced, owing to the almost perfect organization of the society.

Some years ago the society found that the hospitality of the citizen in the places of meeting to some extent interfered with its proper work, and that long papers crowded out shorter and better ones. It was then resolved that the society accept of no banquets, etc., and that all papers be limited to twenty-five minutes.

From that time the increase in interest and attendance was marked and now during each of the three days of the meeting, three sessions are held, fully occupied with short practical papers and discussions, the authors having been previously selected by the committee on programme.

The "Tri-State" is in exact harmony with the different state and other local societies, leaving to them all matters of legislation and ethics and requiring that its members be also members in good standing of one or more of these.

The territory embraced is Indiana, Kentucky and Illinois to which Cincinnati and St. Louis have been added. At the last meeting, there were many visitors from other states.

The "Tri-State" holds front rank in reputation in both Europe and America as a working society and work has been the secret of its success.

For further information address any of the officers: Dr. Wm. Porter, St. Louis, President; Dr. G. W. Burton, Mitchell, Ind., Secretary; Dr. F. W. Beard, Vincennes, Ind., Treasurer; Dr. T. B. Harvey, Indianapolis, Chairman of committee of arrangements; Dr. T. L. Thompson, Indianapolis, Chairman of committee on programme.

G. W. BURTON, Sec.

Avena Sativa.

STRANGE as it may appear, the remarkable claims which have been made for avena sativa, and on the strength of which a preparation of the cereal has been sought to be palmed off on a long-suffering profession, do not seem to have met with that amount of confidence which is necessary to ensure the financial success of a venture of this nature. Dr. William Murrell, the famous London experimental therapeutist, has made them the subject of badinage, and various contemporaries have expressed great admiration for the author's originality and powers of imagination. The American Medical Weekly in referring to Dr. Murrell's comments says: "Dr. Murrell may have truly said, not only that Dr. Sell's powers of imagination are 'remarkable,' but that, in the language of Dominie Samson, they are 'prodigious.' One must indeed be daftly enthusiastic or a professional idiot to believe such stories and such stuff about oats."

Retrostalsis.

WE WOULD supplement the discussion in these columns some time ago, on the possibility of the passage of fluids from below upwards through the ileo-cæcal valve, by a citation of the evidence furnished by the experiments of Dr. Charles L. Dana, of New York, as published in the Medical Record. These experiments have demonstrated clearly the fact of retrostalsis and the upward passage through the valve and into the stomach. This fact has an important bearing on the question of rectal alimentation by means of substances which require the action of the juices of the small intestines for their preparation for absorption.

Book Reviews and Notices.

The Untoward Effects of Drugs. A Pharmacological and Clinical Manual. By Dr. L. Lewin, Docent of Materia Medica, Hygiene and Public Health in the University of Berlin. Second edition, revised and enlarged. Translated by J. J. Mulheron, M. D., Professor of Principles of Medicine, Materia Medica and Therapeutics in the Michigan College of Medicine, Detroit, Michigan. The only English translation having the author's endorsement. Price, $2.00.

Detroit, Michigan, U. S. A.: George S. Davis.

On page 301 of the August number of the THERAPEUTIC GAZETTE for 1882 we expressed our opinion of this work, and on page 313 we informed our readers that a second edition would soon appear, the translation to be under the author's personal supervision, with many additions to the original text, this English edition appearing before the second German edition. An examination of this second revised edition more than confirms us in the favorable opinion before expressed. The more the book is examined and studied the more do its practical qualities appear and its value to the practitioner become manifest. All observant medical men in their practice have seen and known the peculiar effects of drugs on different constitutions and often have been at a loss how to account for them, so diversified have been their action and their untoward effects. As illustrating these untoward effects, take quinia: having performed its duties in breaking up an intermittent or remittent fever, we often have an eruption or deafness or an affection of vision following. Cod-liver oil, ordinarily so bland, gives rise to a vesicular eruption, iodide of potassium to a hyper-secretion of the mucous membrane, and salicylic acid to a diaphoresis and other nervous disturbances. All have noticed the peculiar effects of copaiba and cubebs outside of their curative properties, and the discoloration of the skin by the internal administration of nitrate of silver. The author goes through the materia medica and gives his readers these untoward effects, a knowledge of which is extremely essential to the practitioner's reputation, for by this knowledge he can relieve his patient's mind and at the same time the perplexities of his own.

For these reasons it is a valuable addition to every physician's library. It is written in a pleasant, readable style, and we learn from the author that the translation is satisfactory.

The price of the book is very reasonable and it is issued by the publisher in a very neat style.

We advise our readers to send for a copy, as we know they will be much pleased with it.

The following from a circular issued by the publisher, is of timely interest in connection with this edition of the above work:

"In issuing my edition of Dr. Lewin's work on 'The Untoward Effects of Drugs,' I am constrained, through circumstances, to offer some explanation for my placing on the market a second translation so shortly after the one issued by another publishing house: I had completed arrangements with Dr. Lewin for bringing out this book on this side of the Atlantic, and had committed the work of translation, some time before any intimation of another translation was made. On receiving notice that others had assumed to issue the work in this country, I was naturally, in view of my contract with the author, very much surprised, and wrote to Dr. Lewin for an explanation. The following is a copy of his reply.

(Translation.)

BERLIN, April 17, 1882.

Mr. Geo. S. Davis, Medical Publisher, Detroit, Mich. U. S. A.:

DEAR SIR:—Your communication has been received. It is with profound indignation that I learn that an unauthorized edition of my work "Die Nebenwirkungen der Arzneimittel" (A. Hirschwald, Berlin, 1881), is about to appear in America. I beg herewith to affirm that you alone are authorized to have this work translated into the English language, and to publish and sell such English translation in America. I have agreed to revise the translation which you are to issue, and to make such additions as the progress of the same shall render necessary up to the time of publication. The translation to be issued by you is the only one having my endorsement, and being prepared under my supervision, I respectfully

ask for it the attention of the medical profession of America. I remain with great respect,

Yours very truly,

DR. L. LEWIN,

Docent of Materia Medica, Hygiene and Public Health in the University of Berlin.

The facts of the case, in connection with the two translations now in the market, are thus succinctly stated. They are their own comment, and scarcely call for further emphasis.

Quain's Elements of Anatomy. Edited by Allen Thomson, M. D., D. C. L., LL. D., F. R. S., formerly Professor of Anatomy in the University of Glasgow; Edward Albert Schaffer, F. R. S., Assistant Professor of Physiology in University College, London; and George Dancer, Shane Professor of Anatomy in University College, London. In two volumes. Vol. I illustrated by 380 engravings, of which 78 are colored. Vol. II illustrated by nearly 800 engravings, of which 19 are colored. Ninth edition. 1882.
New York: Wm. Wood & Co., Publishers.

The first volume of this complete work on anatomy consists of 707 pages, with an index of 40 pages. The second volume has 918 pages and 30 pages of index.

Quain's Anatomy has been for many years a standard work, but so many additions have been made and so thoroughly revised that this—the ninth edition—is as near a complete work on the science of anatomy as can be made. No pains have been neglected to make it such, either by the authors or the publishers.

The contents of the first volume consist of: 1. Elements of anatomy. 2. Osteology. 3. Arthrology. 4. Myology. 5. Angeiology. 6. Neurology. 7. Superficial and topographical anatomy.

Volume two treats of general anatomy or histology, special anatomy of the viscera or splanchnology, and embryology. Each and every one of these points are profusely illustrated. Every bone, articulation, muscle, blood-vessel and nerve can be seen, and is as thoroughly described. The bones, articulations, muscles and nerves are delineated by wood cuts, which are clear and distinct. Both the arteries and veins are beautifully colored, and hence cannot fail to impress their positions upon the student's mind, and also to revive the memory of those longer in practice.

Wilson and Gray are valuable works upon anatomy proper, and the student who has his knowledge of anatomy based upon the teaching of these authors cannot but be otherwise a good anatomist. But where this great work excels those alluded to, and while, at the same time, fully their equal, so far as each teach us, is in that part devoted to general anatomy or histology in the special anatomy of the viscera, or splanchnology and embryology; while allusions are made by other anatomists to these departments, yet they are not satisfactory. Quain, however, enters upon these subjects in full, and by so doing makes a complete work, and at the same time a concise one. The present edition is fully up to the times. It differs from Gray in that reference to the different parts in the illustrations is made by letters and numbers under each, while in Gray the names of the different parts are printed upon them.

To the student who took his first lessons from Wilson, or the Dublin Dissector, and which were the standards of the time, Quain's Anatomy of 1882 seems immense, and yet it only represents the progress made in anatomical science since its first edition was issued.

Such a complete work in a medical library is a most valuable acquisition, and every physician and surgeon should possess a copy, for reasons that are obvious. It is elegantly printed on clear white paper. If we have any fault to find it lies in the fact that it is uncut, after the manner of English medical books. It took us nearly three hours to cut the pages before we could examine it—too much time to be lost for the value of the labor; besides the rough edges receive and hold the dust, which soon gives it a dirty appearance. The binder could save the three hours' time by an outlay of five minutes work.

The price of Quain's anatomy is $12.00, bound in cloth, and in our opinion is well worth the cost. We cordially commend it to our readers as the first class work upon human anatomy.

Manual of Gynecology. By D. Benj Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh; Late Assistant to the Professor of Midwifery, University of Edinburgh; Late President of the Royal Medical Society, etc., and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh; Late President of the Royal Medical Society. Vol. 1. With eight plates and one hundred and ninety-two wood cuts.
New York: Wm. Wood & Co. 1883.

This volume commences the 5th year series of Wood's library of standard medical authors, and is furnished to subscribers for $15.00 for the year. No separate copies of the set are sold.

When a Scotchman, and especially an Edinburgh medical man, writes a book, it is because he has something to write about, and has a theory or a set of ideas which he feels sure has not been presented before.

The work before us is written by Scotchmen and comes from Edinburgh. It will be completed in two volumes, the first of which is before us. To give our readers some idea of the volume, we give first a resumé of its contents.

PART I.

Treats of the anatomy, physiology, and method of examination of the female pelvic organs.

Section 1.—Anatomy and physiology of the female pelvic organs.

Chapter I. General anatomy of external genitals and contents of pelvis.

Chapter II. The position of the uterus and its annexa, and the relations of the superjacent viscera.

Chapter III. Structural anatomy of the female pelvic organs.

Chapter IV. Blood vessels of the pelvis, lymphatics, nerves, and development of pelvic organs.

Chapter V. Physics of abdomen and pelvis, with special reference to the semi-prone and genu-pectoral postures.

Chapter VI. Menstruation and ovulation.

Section 2.—Physical examination of the female pelvic organs.

Chapter VII. Abdominal examination; vaginal examination; the bi-manual examination, with its various modifications.

Chapter VIII. Examination per rectum.

Chapter IX. The vulsellum.

Chapter X. Vaginal specula.
Chapter XI. The uterine sound.
Chapter XII. The sponge, tent and other uterine dilators.
Chapter XIII. The curette.
Chapter XIV. Knives, scissor, needles, sutures, antiseptics, douches and syringes, cautery and anæsthetics.

PART II.

Diseases of the female pelvic organs.
Section 3.—Affections of peritoneum andc onnective tissues.
Chapter XV. Pelvic peritonitis—pelvic cellulitis.
Chapter XVI. Pelvic hæmatocele.
Section 4. Affections of the fallopian tubes and ovaries.
Chapter XVII. Fallopian tube parovarium, round ligament, broad ligament, tubo-ovarian cysts.
Chapter XVIII. Malformations of the ovary, ovaritis and peri-ovaritis.
Chapter XIX. Battey's operation.
Chapter XX. Pathology of ovarian tumors.
Chapter XXI. Diagnosis of ovarian tumors.
Chapter XXII. Operative treatment of ovarian tumors.
Section 5.—Affections of the uterus.
Chapter XXIII. Malformation of the uterus.
Chapter XXIV. Atresia of the cervix and uterus and superinvolution of the uterus.
Chapter XXVI. Hypertrophy of the cervix, amputation and supra-vaginal posture treatment.
Chapter XXVII. Lacerations of the cervix.
Chapter XXVIII. Chronic cervical catarrh.
Chapter XXIV. Endometritis.

The authors have entered fully upon their work, as can be seen from the above statements of the subjects already discussed, and although gynecologists may differ upon the *modus operandi* of their surgical operation, appliances and treatment, it bears upon its face a thorough knowledge of the subject, with an honest endeavor to inform the reader what is known, and their own ideas when they differ, are fairly expressed.

From our examination we consider it a very valuable work on the subject, and the good judgement of the publishers in making it the initial volume of the series for 1883 is apparent.

When the first volume of Wood's Medical Library was issued, we advised our readers to subscribe at once for it. It has grown in value beyond our personal expectation, and so good has been the selection, and arrangement, that a young man commencing practice has in it a sufficient library for all practical purposes. The price of the series for the four preceding years is now placed at $18.00, and at that price is exceedingly cheap.

In the interest of our readers we give below the subjects which will form the series for 1883, and we are happy to see that the great work Charles Meymott Tidy, M. B., F. C. S., on "Legal Medicine," will be completed in two more volumes.

Wood's Library of Standard Medical Authors—1883.—The volumes selected for publication in 1883 are believed to be equal to any previous series, in point of scientific merit, and will far exceed them all in beauty and excellence of mechanical workmanship. Wood's Library of Standard Medical Authors will continue to be sold the current year as heretofore by subscription only, at $15 a year. As these volumes are all new and some of them original works, prepared especially for this Library, it may become necessary from wholly unforeseen causes, to substitute some other work in place of one or two of the volumes. Such a possibility, however, is less likely to occur this year than heretofore, every precaution having been taken to ensure the delivery of the manuscripts in season to enable the publishers to issue them as advertised.

I.—Manual of Gynecology. By D. Benj. Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, etc., etc., and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh. Volume I. Illustrated with ten plates, two of which are in colors, and 102 fine wood engravings.

II.—Manual of Gynecology.—By D. Benj. Hart, M. D., F. R. C. P. E., Lecturer on Midwifery and Diseases of Women, School of Medicine, Edinburgh, etc., etc.; and A. H. Barbour, M. A., B. Sc., M. B., Assistant to the Professor of Midwifery, University of Edinburgh. Volume II. Illustrated with a lithographic plate and 209 fine wood engravings.

III.—Handbook of Electrotherapeutics. By Dr. Wilhelm Erb Professor in the University of Leipzig. Illustrated by 39 wood engravings.

IV.—The Microscope and its Revelations.—By Wm. B. Carpenter, C. B., M. D., LL. D. Sixth Edition. Volume I. Illustrated by one colored and about 16 plain plates, and upwards of 300 fine wood engrauings.

V.—The Microscope and its Revelations. By Wm. B. Carpenter, C. B., M. D., LL. D. Sixth Edition. Volume II. Illustrated with about 10 plates and upwards of 200 fine wood engravings.

VI.—Diseases of the Œsophagus, Nasal Cavities and Neck. By Morrell Mackenzie, M. D., London, Senior Physician of the Hospital for the Diseases of the Chest and Throat; Lecturer on Diseases of the Throat at London Hospital Medical College, etc. Illustrated by wood engravings.

VII.—The Diseases of Women. A Manual for Physicians and Students. By Heinrich Fritsch, M. D., Professor of Gynecology and Obstetrics at the University of Halle. Translated by Isidore Furst. Illustrated with 150 fine wood engravings.

VIII.—The Treatment of Wounds. Being a treatise on the principles upon which the Treatment of Wounds should be founded, and on the best methods of carrying them into practice, including a consideration of the modifications which special injuries may demand. By Lewis S. Pilcher, A. M., M. D., of Brooklyn, N. Y. Illustrated by wood engravings.

IX.—Hereditary Syphilis; Its Pathology, Treatment and Differential Diagnosis. By F. R. Sturgis, M. D., Harv., Member of the Academy of Medicine, Ophthalmological Society, Dermatological Society, N. Y., Clinical Society, Visiting Surgeon Charity Hospital, New York, etc. One Volume. Illustrated with one chromo-lithograph and several fine wood engravings.

X.—Legal Medicine. By Charles Meymott Tidy, M. B., F. C. S., Master of Surgery. Professor of Chemistry and of Forensic Medicine and Public Health at the London Hospital, Medical Officer of Health for Islington, Late Deputy Medical Officer of Health and Public Analyst for the City of London, etc. Volume III.

XI.—Legal Medicine. By Charles Meymott Tidy, M. B., F. C. S., Master of Surgery. Professor of Chemistry and of Forensic Medicine and Public Health at the London Hospital. Medical Officer of Health for Islington, Late Deputy Medical Officer of Health and Public Analyst for the City of London, etc. Volume IV.

XII.—A Treatise on Veterinary Medicine. As applied to the Diseases and Injuries of the Horse. Compiled from standard modern authorities. By F. O. Kirby. Illustrated by six chromo-lithographic plates, containing numerous figures and about 150 fine wood engravings.

The mechanical execution and the quality of the paper for 1883 is far superior to that of preceding years, for which the publishers are to be commended.

How we Ought to Live: A practical Guide, written in plain, intelligible language, for the preservaton of health, and the attainment of longevity; designed to enable all so to live, that they may reach old age in health and comfort. By Joseph F. Edwards, A. M., M. D., Author of "How a Person Threatened or Afflicted with Bright's Disease ought to Live;" 'Dyspepsia and How to Avoid it;" "Constipation, relieved without the Use of Drugs;" "Malaria;" and assistant editor of the "Medical and Surgical Reporter.

Philadelphia: H. C. Watts & Co., 506 to 510 Minor St.

We have here reproduced the title page of this work, of 636 octavo pages which has recently been given from the press. The author's reputation in connection with the literature of personal hygiene is sufficient to prepossess one in its favor, and to stimulate a careful perusal.

While the work is, perhaps, not strictly such a one as would have been written for medical readers, and contains considerable which is trite to the physician, it is nevertheless rich in points which even medical men are prone to let slip from the fastnesses of memory, and reminders of which are frequently as valuable as much that is given forth as strictly new. The style of the author is, moreover, exceedingly agreeable and will afford a pleasant relief after the perusal of more erudite (a term which is often a synonym for heavy and prosy) production.

"How we ought to Live" is more especially designed for popular reading and viewed from this standpoint it is an unqualified success. The necessity for just such a work has been particularly pressing of late years. With increase in the "comforts of life," so-called, there is a growing neglect of the weightier matters of the law, and the customs of modern life in school room, in domestic circles and in the marts, unite to induce physical deterioration and to shorten the natural span of earthly existence. Dr. Edwards graphically portrays the evils of these customs, and while calling a halt, points out a better way. He treats of how to build up the growing body so that the future man may be a good animal, giving detailed instruction in the matters of physical training, exercise, diet, clothing and the other requisites of an intelligent personal hygiene. But this does not comprise the whole work. It treats of the matters of drainage, ventilation, disinfection and the other questions embraced under the head of sanitation in a very thorough manner, and withal in language easily comprehensible to the intelligent layman.

An appendix of upwards of a hundred pages is a very interesting feature. It consists of letters from septuaginarians, octogenarians, nonogenarians and centenarians, in which these venerable connecting links between the past and the present give accounts of the habits of life which have ensured for them fullness of days. The moral of these is that the human animal has in it a definite amount of life, and that those who consume it by excesses in early years do not live out the full complement of their days. The rule of old Father William: "In the days of my youth I remembered that youth would not last," is still a good one; it is founded on correct physiological principles.

We hazard nothing in attaching to Dr. Edwards' "How We Ought to Live" our unreserved commendation.

Literary Bulletin of Houghton, Mifflin & Company for January and February, 1883.

Boston, Mass.: No. 4 Park street.

Send for a copy. Messrs. H., M. & Co. are also publishers of the Boston Medical and Surgical Journal, weekly; price $5.00 per annum; and likewise of the Atlantic Monthly, price $4.00 per annum.

The March Atlantic continees the high excellence reach by the two preceding numbers for this year. The third and concluding part of Mr. Longfellow's dramatic poem "Michael Angelo" occupies thirty-one pages, and is so thoroughly good and characteristic of Mr. Longfellow that many readers will regret that it has come to an end. John Burroughs, who is a very hearty admirer of Carlyle, gives an interesting account of a trip "In Carlyle's Country." Agnes Paton, who has contributed some very striking short stories to the Atlantic, this month has another of the same noteworthy character, entitled "Antagonism." "By Horse-Cars into Mexico," is a lively travel sketch by H. H. Mr. George P. Lathrop, Hawthorne's son-in-law, contributes an article, which all Hawthorne lovers will read with peculiar zest, on "The Hawthorne Manuscripts." Henry James writes in his best vein of "Tommaso Salvini," an article which the multitude of admirers of this great actor will read with great interest. Rev. J. H. Allen, an authority in matters of history, especially ecclesiastical history, has an essay full of information on "Port Royal." "The City of Earthquakes," by Horace D. Warner, is a paper of startling interest on the frequency and effect of earthquakes at Caracas, in Venezuela. The most noticeable brief poem of the number is by Dr. Holmes—"A Loving-Cup Song." Other poems and reviews of important new books, with a Contributors' Club of excellent variety, and brief notices of books of the month, conclude another admirable number of the Atlantic. Houghton, Mifflin & Co., Boston.

Sammlung Klinischer Vorträge in Verbindung mit deutschen Kliniken. Herausgegeben von Richard Volkmann, Leipzig.

We have received two numbers of this collection, respectively on "Lageveränderung der Gebärmutter," by Bernhard S. Schultze, and "Ueber den antiseptischen Occlusivverband und seinen Einfluss auf den Heilungsprocess der Wunden," by Richard Volkmann. Each of these subjects is treated with characteristic German thoroughness. The collection is published in series of thirty numbers, the subscription price of each series being 15 marks, and three of such series have already been given from the press. The titles of the ninety numbers issued reveal a great variety of subjects. From our perusal of the two numbers received we can highly commend the publications to such of our readers as are familiar with the German tongue.

Pharmakologische Untersuchungen. Aus dem Institut für Experimentelle Pharmakologie der Universität Würzburg. Herausgegeben von Dr. M. Jos. Rossbach, o. ö., Professor der Arzneimittellehre.

This serial is, as its name implies, devoted to the pharmacological investigation of drugs, the term pharmacological being employed in its broadest signification, and embracing a consideration of everything pertaining to a drug—its botany, chemical constituents, active principles, physiological action, therapeutic properties and pharmaceutical prepara-

tions. The fact that it records the work of the Institute for Experimental Pharmacology at the University of Würzburg, taken in connection with the standing of its editor, is all the guarantee which any one would require for the quality of the publication.

A Guide to the Practical Examination of Urine. For the use of Physicians and Surgeons. By James Tyson, M. D., Professor of General Pathology and Morbid Anatomy in the University of Pennsylvania; President of the Pathological Society of Philadelphia; one of the Physicians to the Philadelphia Hospital; Fellow of the College of Physicians of Philadelphia, etc., etc. Fourth edition, revised and corrected. With colored plates and wood engravings. Price $1.50. 1883.

Philadelphia: P. Blakiston, Son & Co.
Detroit: John MacFarlane.

We have heretofore expressed our favorable opinion of this work. In the short time of eight years four editions have been called for. The additions to this have been more to correct errors and secure greater accuracy and completeness. To face the title page Vogel's scale of urine tints has been added, which further adds to its completeness. We know of no better book of the kind for the purpose for which it is written, and we therefore cordially commend it.

A Dictionary of Electricity, or the Electrician's Hand-book of Reference: Including Recent Electrical and Technical terms, and Descriptions of the late Inventions of the Paris Electrical Exhibition, and of other new inventiens in Electricity and Magnetism. By Henry Greer, Member of the European Society of Engineers, New York Electrical Society, American Geographical Society, Student of the Ecole Superieure du Telegraphe, South Kensington Science Schools, and King's College, London. With Additions by Wm. L. Allison, Author of Allison's Dictionary.

Profs. Edison and Pope say of this work: "It is exceedingly valuable to all interested in electrical science. Leaving out the old glass machine, sealing-wax, amber experiments, etc., and inserting cuts and descriptions of the recent wonderful inventions, make it exceptionally interesting to colleges, schools, electricians and telegraphers. Nearly every electrical inventor and manufacturer in the world will find a description of his invention or apparatus in it." Cloth, 12mo., 182 pp. illustrated. Price $2.00.

Descriptive Circulars on New Drugs and Specialties introduced by Parke, Davis & Co., Detroit, Michigan.

Presidential and Other Addresses. By Ed. C. Harwood, M. D., together with addresses by Prof. George T. Elliot, Lewis A. Sayre, Frank H. Hamilton, A. B. Crosby, etc. Reprints from various periodicals.

New York: Wm. R. Jenkins.

Statement of Facts in Connection with the Quarterly Report of the Treasurer of "The Medico-Legal Society" of New York. Prepared for presentation at the meeting of September 6th, 1882. By Ed. C. Harwood, M. D.

New York: 44 West Forty-Ninth street.

Annual Address Delivered Before the American Academy of Medicine at its Seventh Annual Meeting in Philadelphia, Oct. 26, 1882. By Trail Green, A. M., M. D., of Easton, Pa., President of the Academy. Published by order of the Academy. Philadelphia, 1883.

Massage: Its Mode of Application and its Effects. By Dr. Douglas Graham, Boston, Mass. Reprint from the Popular Science Monthly, October, 1882. J. H. Vail & Co., medical publishers, booksellers and importers, 21 Astor Place and 142 Eighth street, New York City.

Scrofula and its Gland Diseases. An Introduction to the General Pathology of Scrofula, with an Account of the Histology, Diagnosis and Treatment of its Glandular Affections. By Frederick Treves, F. R. C. S., Eng., Assistant-Surgeon to and Senior Demonstrator of Anatomy at the London Hospital; late Wilson Professor of Pathology at the Royal College of Surgeons. 1883. Price 10 cents.

Philadelphia: Henry C. Lea's Son & Co.

A closely written pamphlet of over 76 pages and well worth the price. Send for a copy.

Naso-Aural Catarrh and its Treatment. By W. H. Daly, M. D., Pittsburg, Pa. Reprint from the Archives of Laryngology, Vol. III, No. 4. October, 1882.

The Ethical Problem as Demonstrated by the History of Medical Societies of New Orleans. An address before the New Orleans Medical and Surgical Association on the evening of their ninth anniversary, Saturday, Dec. 2, 1882, by the retiring president, Joseph Holt, M. D. Reprint from the New Orleans Medical and Surgical Journal, January, 1883.

On Sanitary Conditions in their Relation to the Treatment of Surgical Operations and Injuries. By James L. Caball, A. M., M. D., LL. D., President National Board of Health; ex-President A. P. H. Association; ex-President and Honorable Fellow Medical Society of Virginia; Professor of Surgery and Physiology in University of Virginia. Read before the American Surgical Association of Philadelphia, May 31, 1882.

A very practical and interesting pamphlet and worthy of attention. Send to the author for a copy. Address Richmond, Va.

The Insufficiency of the Laws Governing Committments to Asylums for the Insane; with reports of cases. By Boardman Reed, M. D., President of the Atlantic County Medical Society; Physician to the Seaside House for Insane Women, Atlantic City, N. J. Reprint from the Philadelphia Medical Times for January 13, 1883.

Ninth Biennial Report of the Trustees of the Illinois Asylum for Feeble-Minded Children at Lincoln.

Annual Reports of the Officers and Manager of the New Jersey State Lunatic Asylum at Trenton for the Year Ending October 31, 1882.

Anniversary Address Before the New Orleans Medical and Surgical Association, Dec. 20, 1882. By Dr. John Godfrey, Passed Assistant Surgeon, U. S., A. H. S. Reprint from the New Orleans Medical and Surgical Journal.

Thirtieth Annual Announcement, Medical Department, University of Vermont, for the Year 1883. Burlington Vermont.

Session of 1883 begins on the first Thursday of March and continues seventeen weeks.

Michigan Crop Reports, No. 15. January 1, 1883. Prepared and published by the Secretary of State as required by Act No. 33, Laws of 1882.

Therapeutic Progress.

A Note upon the Mullein Plant in the Treatment of Pulmonary Consumption.—From time immemorial, the Verbascum thapsus, or great Mullein, has been a trusted popular remedy, in Ireland, for the treatment of the above formidable malady. It is a wild plant—most persons would call it a weed—found in many parts of the United Kingdom; and, according to Sowerby's British Botany, vol. vi, page 110, is "rather sparingly distributed over England and the south of Scotland." In most parts of Ireland, however, in addition to growing wild, it is carefully cultivated in gardens, and occasionally on a rather extensive scale; and this is done wholly and solely in obedience to a steady popular call for the herb by phthisical sufferers. Constantly, in Irish newspapers, there are advertisements offering it for sale; and there are, in this city, pharmaceutical establishments of the first rank in which it can be bought. Still it does not appear in the Pharmacopœia; nor, as far as I know, has its use received

the official sanction of the medical profession. Some friends with whom I talked over the matter at the Pharmaceutical Conference at Southampton last August, suggested that it would be desirable to make a therapeutical research into the alleged powers of this drug, and ascertain by actual experiment its efficacy or otherwise. Having partially accomplished this, I am anxious to very briefly set forth what has been done, in order that others may be induced to co-operate in the work.

There are five mulleins, all belonging to the parent order of the Scrophulariaceæ; but the old Irish remedy is the great mullein or Verbascum thapsus, a faithful delineation of which will be found in Plate 1437, vol. vi, of Sowerby. It is a hardy biennial, with a thick stalk, from eighteen inches to four feet high, and with very peculiar large woolly and mucilaginous leaves, and a long flower spike with ugly yellow and nearly sessile flowers. The leaves are best gathered in late summer or autumn, shortly before the plant flowers. In former times, it appears to have been rather highly thought of, particularly as a remedy for diarrhœa; and Dioscorides, Culpepper, and Gerarde favorably allude to it.

Having been furnished with a good supply of fresh mullein from a garden near this city, where it is extensively grown, I commenced operations. As it proved useful, subsequent supplies were procured from our drug-contractor.

The old Irish method of administering the mullein is to place an ounce of the dried leaves, or a corresponding quantity of the fresh ones, in a pint of milk; to boil for ten minutes, and then to strain. This strained fluid is given warm to the patient, with or without a little sugar. It is administered twice a day; and the taste of the mixture is bland, mucilaginous, comforting to the præcordia, and not disagreeable. I resolved to try this method, and also the watery infusion; and, moreover, the natural expressed juice fortified with glycerine. This latter preparation was carefully made for me, from fresh mullein leaves, by Dr. John Evans, chemist to the Queen and the Prince of Wales.

Some phthisical sufferers, of whom there are here, alas! too many, were now admitted from time to time into St. Vincent's Hospital. They were admitted in all stages, from an early one to the most advanced. On each admission, the case was carefully examined; the history, symptoms, and physical signs were exactly noted; and the patient was weighed on a stage balance of great accuracy. The patient was put as much as possible on the mullein treatment only. For obvious reasons, no cod-liver oil, koumiss, or other weight-producer was given; the patients got the diet suitable to such sufferers; and, if the special symptoms became troublesome, received appropriate treatment. As much as possible, however, they were left to the mullein—a proceeding which was entirely satisfactory to themselves. In addition to the admission-weighing, they were carefully weighed every week, and care was taken that this should be done as nearly as possible on the same day and hour, with the same clothes, and, in fact, as much as could be under the same conditions. In securing this, the patients anxiously co-operated; and it was frequently amusing, but sometimes painful, to watch the satisfaction or chagrin with which the weekly result was received. I must here tender my acknowledgments to our zealous, attentive, and accurate house-surgeon, Mr. Denis P. Kenna, by whom this important, but tedious, duty was discharged.

I annex a brief statement of patients so treated, with particulars of their cases and the results obtained.

Case 1.—Elizabeth S., æt. 22, single, resident governess at Kildare, was admitted November 8, 1882. She had been ill for six months, with severe cough and profuse night sweats. The catamenia had ceased from the outset of the illness. There was a cavity with tubular breathing, and moist crepitus under the left clavicle. Tubercular bacilli were found in her sputum. She was put on mullein twice a day. On November 16th the cough was much relieved, and the dyspnœa diminished. The perspirations were unchecked. They were stopped by the hypodermic use of atropia sulphate. On December 4th, cough and breathing were much relieved. As death was evidently approaching, the weighings were discontinued. On January 8, 1883, she died very peacefully of pure exhaustion, and without any dyspnœa or pain. The weighings were, on November 9, 1882, 93 lbs. 8 ozs. On November 14, 1882, her hair was cut short, reducing her weight 5 ozs. On November 16th her weight was 90 lbs. 8 ozs.; on the 24th, 90 lbs. 8 ozs.

Remarks.—From the beginning this case was hopeless, and an early termination evident. To those familiar with such cases the relief to the cough and dyspnœa was clear and distinct. The diminution of the distress to be expected at the closing scene was evident.

Case 2.—Richard C., æt. 45, married, a farmer, of Meath, was admitted November 8, 1882. He had been phthisical for two years, during which time he had suffered from cough, with occasional attacks of hæmoptysis and of night sweats. The apex of the left lung was dull, with tubular breathing and moist crepitus. There was no dyspnœa. Mullein was given twice daily. On November 18th his cough was much easier; he felt much improved. On November 24th an improvement continued. On December 1st he left the hospital, saying that he would continue the treatment at home. I was unable to ascertain whether bacilli were present, as my dyes did not arrive till after his departure. The results of weighing were, November 9th, 146 lbs. 4 ozs.; November 17th, 143 lbs.; November 24th, 144 lbs.; December 1st, 144 lbs.

Remarks.—This patient's case was unfavorable. He was not troubled with the hæmoptysis or night sweats while with us. He left with a much better opinion of his future than we had. The relief to his cough was very evident.

Case 3.—Sarah O. F., æt. 29, married, no family, a dress-maker in Dublin, was admitted November 9, 1882. She had been phthisical for the last five years, and had chronic cough and occasional hæmoptysis; the catamenia were irregular and scanty; there was dullness under the right clavicle, with diminished respiratory murmur. Mullein was given twice daily. On November 17th she left the hospital at her own request. The cough was much improved. Her weight had increased from 102 lbs. 8 ozs., on the 10th, to 105 lbs. on the 17th.

Remarks.—This was an average case of chronic phthisis, and the relief obtained was considerable.

Case 4.—Margaret R., æt. 26, single, a servant at Dublin, was admitted November 14th, 1882. She had been phthisical for three months, with cough and emaciation. The catamenia had ceased. There was dullness under the left clavicle, with moist crepitus. Mullein was given twice daily. On November 28th she left at her own request. The cough was much improved, and her weight increased. The results of weighing were, November 15th, 98 lbs.; November 22d, 101 lbs.; November 29th, 102 lbs. 4 ozs. and December 6th, 105 lbs. 12 ozs.

Remarks.—This was a rather acute case, but was taken in time. The relief and improvement were evident.

Case 5.—Martin G., æt. 24, single, a draper's assistant in Dublin, was admitted November 13th. He suffered two years ago from severe hæmoptysis; since when he had been ailing. It returned on November 11th, and it was for this he was admitted. When it was checked, we discovered dullness under the left clavicle, with moist crepitus. Mullein was given twice daily. His weight on November 20th was 114 lbs. 2 ozs.; on November 28th, 144 lbs. 8 ozs.; December 4th, 116 lbs. 4 ozs.; December 7th, 117 lbs. 8 ozs.

Remarks.—This patient had a very great tendency

to diarrhœa, which the mullein checked most effectually. His cough was also benefited.

Case 6.—Patrick N., æt. 28, single, a laborer, residing in Dublin, was admitted December 18th. He had been phthisical for two years, having occasional hæmoptysis and profuse night sweats, which latter were at once checked by atropia. There was dulness under the left clavicle over a large area, with cavernous breathing and a cracked-pot sound. Phthisical bacilli were present in the sputum. He also suffered from anal fistula. His weight, on December 19th, 122 lbs. 4 ozs.; on the 30th, 124 lbs. 8 ozs.

Remarks.—In this case the cough was much benefited.

Case 7.—Julia N., æt. 23, single, of no occupation, was admitted December 24th. She had been phthisical for three years, and had severe cough and occasional hæmoptysis. The catamenia had stopped for six months. There was dulness under the left clavicle, with moist crepitus. Mullein was given twice daily. The records of her weight are, December 26th, 84 lbs. 8 ozs.; January 2, 1883, 85 lbs.; January 9th, 83 lbs.

Remarks.—This patient is still under the mullein treatment. The relief of the cough is very great.

I have set down the above cases simply in the order in which they occurred, and with no view of supporting any preconceived idea. These cases, although too few to justify any general conclusion, appear to establish some useful facts. The mullein plant boiled in milk is liked by the patients; in watery infusion it is disagreeable, and the succus is still more so. The hot milk decoction causes a comfortable (what our Gallic neighbors call pectorale) sensation, and when once patients take it, they experience a physiological want and when the supply was once or twice interrupted, complained much in consequence. That it eases phthisical cough there can be no doubt; in fact, some of the patients scarcely took their cough mixtures at all—an unmixed boon to phthisical sufferers with delicate stomachs. Its power of checking phthisical looseness of the bowels was very marked, and experiment proved that this was not merely due to the well-known astringent properties of boiled milk. It also gave great relief to the dyspnœa. For phthisical night-sweats it is utterly useless; but these can be completely checked by the hypodermic use of from the one-eightieth to one-fiftieth of a grain of the atropia sulphate; the smaller dose, if it will answer, being preferable, as the larger causes dryness of the pharynx, and interferes with ocular accommodation. In advanced cases, it does not prevent loss of weight, nor am I aware of anything that will, except koumiss. Dr. Carrick, in his interesting work on the koumiss treatment of Southern Russia (page 213) says: "I have seen a consumptive invalid gain largely in weight, while the disease was making rapid progress in her lungs, and the evening temperature rarely fell below 101° Fahr. Until then I considered that an increase of weight in phthisis pulmonalis was a proof of the arrest of the malady." If koumiss possesses this power, mullein clearly does not; but unfortunately, as real koumiss can be made from the milk of the mare only, and as it does not bear travelling, the consumptive invalid must go at least to Samara or Southern Russia. In pretubercular and early cases of pulmonary consumption, mullein appears to have a distinct weight-increasing power; and I have observed this in several private cases also. Having no weighings of these latter, however, makes this statement merely an expression of opinion. In early cases, the mullein milk appears to act very much in the same manner as cod-liver oil; and when we consider that it is at once cheap and palatable, it is certainly worth a trial. I will continue the research by careful weighings of early cases; and will further endeavor to ascertain whether the addition of mullein to the cultivating solution prevents the propagation of the phthisical bacillus.—F. J. B. Quinlan, M. D., M. R. I. A., F. K. Q. C. P., Physician to St. Vincent's Hospital, Dublin, in *British Med. Jour.*

Observations on Six Hundred Cases of Diabetes Treated at Neuenahr.*—Six hundred patients have been under treatment; of these 420 were Germans and 180 foreigners; five were under 10 years old, 25 between 10 and 20 years, 56 between 20 and 30, 104 between 30 and 40, 134 between 40 and 50, 196 between 50 and 60, 60 between 60 and 70 and 20 between 70 and 80 years of age; 248 of the patients came of families in which diabetes had already appeared; 51 came of families in which some serious psychosis had manifested itself, and 45 more had relatives who were remarkable for eccentricity or irritability, and 42 came of families which were markedly tuberculous; 93 of the cases were Jews, and of these 48 had diabetic relatives, 18 had relatives with psychoses and nine tuberculous relatives. In eight cases, both husband and wife were at the same time suffering from diabetes. In 183 cases, the immediate exciting cause of the disease appeared to be some acute disturbance of the nervous centres, and only in 18 was there any essential disease of the nervous system; in 153 cases, the diabetes was attributable to an excessive indulgence in sugar and saccharine food; in 45 cases it was attributable to gout, and, in several instances, alternated with a gouty attack. It was in these cases that alkaline waters and salicylate of soda were most useful; in 22 cases, diabetes seemed to be the result of the exhaustion consequent on some severe and long continued disease. The specific gravity of the urine varied from 1025 to 1035; the highest was 1042, the lowest was 1013, and in this latter one to five per cent. of sugar was found. The average daily amount of the urine was 2,500 c. c. to 3,500 c. c.; in only one case was it 9,000 c. c.; in 14 cases it was as low as 500 c. c. to 800 c. c., in spite of taking 1,600 grains of the sprudel water; but wherever the quantity of urine was small the perspiration was great, and where perspiration became copious the sugar decreased, which may explain the beneficial action of pilocarpin and of Turkish baths. Generally the day urine contained most sugar, exercise diminished it, while mental exertion and nervous excitement and pain increased it. The sugar varied from one to three per cent.; in only one case was it as high as eight per cent. When albumen was present, as not unfrequently happened, it seemed to be in inverse relation to the sugar. After the disappearance of the sugar, a material increase of phosphates, and, in some, of oxalates, was noticed; in four cases, hippuric acid was present. In two cases, sugar was simulated by a form of uric acid when the copper test was used; the fallacy was rectified by the polariscope. When the skin was dry, there were considerable polyuria and much emaciation; if there was a fair amount of sensible skin action, the emaciation was not marked; 35 cases were very fat and other 46 had lost little of their former corpulency. The muscular weakness is the consequence, mainly, of degeneration of structure, which affects not only the voluntary muscle, producing the unsteady gait and the easy fatigue, but affects the cardiac muscles, producing the small pulse, the feeble heart contraction, the syncopic attacks, and the death by asthenia; the intestinal muscles producing the constipation, and the ciliary muscles producing the errors of accommodation. The cardiac weakness accounts probably for some of the cases of death, with accompaniment of coma or convulsions, which have been attributed to acetonæmia. Of the condition called acetonæmia there were six cases. That it is caused by the absorption of some noxious product of fermentation in the bowels is certain, but whether this is always acetone is doubtful. The case was relieved as soon as a free evacuation of the dark-colored, very fœtid contents of the bowels was secured by castor oil. If this could not be accomplished, the patient died.

Two forms of hunger are to be noticed: one, the normal hunger produced by the need to replenish the great waste of tissue; the other, a form of bulimia, a ravenous desire for any kind almost of food, which I

*Abstract of a paper communicated to the Medical Society of London.

consider a neurosis. In this connection is to be noticed the frequent insatiable desire for sugar, similar to the alcoholic craving of the drunkard. Thirst is to be looked on as the result of the drain of water, rather than as the result of the passage of sugar. A fœtid odor of the breath is proportionate to the amount of sugar passed. Looseness and falling out of the teeth is often an early sign of diabetes. Gastric disorders are rare, in spite of the food being difficult of digestion; but intestinal troubles are frequent, notably constipation, and sometimes diarrhœa. Constipation appears to me to depend less on the nature of the prescribed food, than on the weakness of the degenerate and enfeebled muscular coat of the intestines. When diarrhœa occurs, there is evidence in the grey fœtid motions, which are quickly covered with a thick froth of fermentation of sugar, unnaturally present in the bowels; of which the urine, at this time, is found to contain very much less than just before the attack of diarrhœa. Neuroses of various kinds, such as a form of hunger, already referred to, are not uncommon; they are chiefly neuroses of sensibility; of motor neuroses, cramp was the only one noticed. Crural neuralgia was not uncommon; sciatic and lumbar neuralgia less frequent; some cases of cervico-occipital neuralgia were noticed, and one of mastodynia in a man of seventy-five years. For their relief codeia and salicylate of soda were most useful. For vulvar pruritus common in female diabetics is probably largely neurotic; it is greatly relieved by lotions of salicylic acid. Apathy is probably produced by the direct influence of the sugar-holing fluids on the brain.

Tuberculosis became developed in the course of diabetes in twenty-six cases only. Impotence was frequently present, but, in twelve cases sexual desire and capacity was increased. Balanitis was occasionally observed, and was relieved or cured by strict cleanliness and salicylic acid lotions. Dimness of sight was frequent, partly produced by accomodation disturbances and partly by turbidity of the lens, which disappeared with an improvement in the diabetes, except in three cases, where there was cataract, which was successfully extracted in all. Boils were common, produced by nutritive disturbances of the skin, as also erysipelas and phlegmon. The prognosis should not be so discouraging as has hitherto been the custom.—Richard Schmitz, M. D., in the *British Medical Journal.*

Remedies for Headache.—The following recipes and suggestions for the treatment of different forms of headache are collected from a variety of trustworthy sources:

Two grains citrate of caffeine, in capsule, taken every half hour, is a very effectual remedy in nervous and sick headache. One or two doses are often sufficient to give complete relief. The only objections to its use is sleeplessness, which sometimes result if it is taken in the evening. It is preferable to guarana as being hardly ever rejected by the stomach.

The following, according to Dr. W. W. Carpenter, is very effectually in most forms of headache:

Muriate of ammonia, 3 drachms; acetate of morphia, 1 grain; citrate of caffeine, 30 grains; aromatic spirits of ammonia, 1 drachm; elixir of guarana, 4 ounces; rose water, 4 ounces. Mix. Dessert spoonful every ten or twelve minutes.

In nervous headache, Dr. W. A. Hammond states the value of various drugs as follows:

Oxide of zinc is of great value. Ordinary dose, 2 grains, three times a day, after meals; maximum dose, 5 grains. It is best given in form of pills.

Nux vomica is preferable to strychnia. The dose is ¼ grain, after meals. If the patient be chlorotic, it is well to combine a grain of reduced iron and half a grain of sulphate of quinine.

Bismuth, in the form of subcarbonate, will often take the place of oxide of zinc. Dose, 2 grains, after each meal. Bismuth probably aids digestion more than any mineral tonic, and is of use when there is gastric disturbance.

The bromines are serviceable when the nervous system has been irritated; when it is exhausted they do harm.

Phosphorus is very useful in most forms of nervous headache. The best results are obtained from dilute phosphoric acid, in doses of 30 drops, largely diluted, three times a day, after eating, or phosphide of zinc, 1-10 grain, in pill, three times a day.

Arsenic as a nerve tonic, stands next in value to zinc. Dose, 5 drops of Fowler's solution three times a day, after meals.

Galvanism is sometimes valuable, but by no means a specific. The constant current should always be used, being careful to avoid too great intensity, lest amaurosis be produced.

Dr. T. Lauder Brunton, editor of the London Practitioner, says: The administration of a brisk purgative, or small doses of Epsom salts, three times a day, in a most effectual remedy for frontal headache when associated with constipation; but if the bowels be regular, the morbid processes on which it depends seems to be checked, and the headache removed even more effectually by nitro-muriatic acid, diluted 10 drops in a wine glass of water, or bicarb. soda, 10 grains, in water, before meals. If the headache be immediately above the eyebrows, the acid is best; but if it be a little higher up, just where the hair begins, the soda appears to be the most effectual. At the same time the headache is removed, the feeling of sleepiness and weariness, which frequently leads the patients to complain that they rise up more tired than they lie down, generally disappears.

A writer to the London Lancet remarks: At the Middlesex Hospital female patients who have suffered many years from sick headache, evidently of a hereditary character, have been greatly benefited, if not cured, by the administration of 10 minim doses of tincture of Indian hemp, three times daily before the attacks. This is well worthy of trial in those cases of ever-living, never-dying martyrdom-like suffering.—*Hospital Gazette.*

Alleged Short-Weight Quinine Pills.—There can be no doubt that investigations of the above nature, if carried out conscientiously and by competent men, are of the utmost importance, and we have ere this pointed out the desirability of not suppressing the names of dealers whose goods are found deficient in quality or quantity. There is at present too little of this kind of work performed; altogether too much reliance is being placed on the "unsullied reputation" of manufacturers, who need closer supervision. For just as familiarity breeds contempt, just so surely competition and a sense of safety will engender boldness, and lull the protests of conscience.

The Medical News article, however, bears neither the evidence of conscientious investigation nor of intelligent authorship, but in nearly every detail betrays the spirit of cheap sensationalism. If conscientious, why need the author avoid the responsibility of his disclosures by creeping behind an anonymous "expert analytical chemist?" If really an "expert," why the precautions to conceal from him any "knowledge, indication or clue as to who were the manufacturers of the different specimens." The distinctive characteristics of the various specimens examined are familiar to any novice in pharmacy, and to an "expert" must have been as readily recognizable as though stamped with the manufacturer's name, especially when one of the specimens analyzed was of the "compressed" variety. A striking tribute the News pays to the intelligence of its chosen expert! A further illustration of the reliability of this expert information is seen in associating the name of the manufacturers with the retail prices at which the specimens were purchased.

Another odd feature in the table quoted is the close

agreement of figures in several cases of controlling experiments. It was the duty of the News writer to point out the utter impossibility of exact agreement between the weight of the alkaloid found and that indicated on the label, for being manufactured on a large scale the ingredients may not always be evenly divided, while the very nature of quinine sulphate precludes constancy of results, since the latter is well known to present different states of hydration. Assuming, however, that a deficiency of fifteen per cent. was found, that should be considered beyond permissible limits, and classified as fraudulent omission, for some assertions to the contrary notwithstanding, a "make" of fifteen per cent. in course of time will amount to considerable, especially if the pills had been manufactured at a period when the alkaloid ranged higher in price than it does at present. One point quite strenuously urged against the above article, that a difference of one-half grain more or less in such a dose of quinine cannot be appreciated by the practitioner, must be declared irrelevant, for that is not the question. A two-grain quinine pill should contain two grains of the salt with reasonable allowance for possible discrepancies, but an average of as much as ten per cent. deficiency in three different samples of the same make cannot possibly fall within the range of excusable variation. While the News' analyses may be dismissed as erroneous in method, results and deductions, it is to be hoped that, attention having been called to the subject, examinations will be instituted by trustworthy analysts with a view of arriving at reliable comparisons.—*The Druggist.*

Tincture of Cobweb in Intermittent Fever.—In an analysis of a large number of cases of intermittent fever treated with the tincture of cobweb, Dr. Oliva formulates the following conclusions:

1. This agent is capable of curing malarial fevers of quotidian or tertian type. It was of no value in several cases of quartan fever.

2. In doses of 30 minims for adults and 15 minims for children, it usually arrests the fever at the second paroxysm.

3. Its action being less prompt than that of quinine, it should never be used in pernicious fevers.

4. Being tasteless, it is easily administered to children.—*Journal de Méd. et Chir. Pratiques*, Dec., 1882.

Salicylic Acid in Night-Sweats.—The following powder is recommended by Dr. Könhorn in the night-sweats of phthisis: Acid salicyl. gr. 45, starch, ʒ ijss, chalk, ʒ ijss. The entire body of the patient is dusted with this powder at bedtime. The author claims to have obtained great success by this treatment. The same powder is employed in the Austrian army in sweating of the feet.—*Memorabilien*, Nov. 15, 1882.

Caffeine in Heart Disease.—Dr. Huchard claims excellent results in the treatment of cardiac dropsy by caffeine. He begins with a dose of 7 grains, gradually increasing to 15, 30, or even 45 grains per diem. He says, however, that such large doses often cause severe pains in the stomach.—*Archives Générales de Médecine*, Dec., 1882.

New Remedies.

Convallaria Majalis.—The Results of Clinical Experiments at the Roosevelt Hospital, New York.—My attention was first called to the drug, convallaria majalis, by an article by Dr. E. P. Hurd, of Newburyport, Mass., which appeared in the Medical Record of September 9, 1882. Soon after I was requested by Dr. Francis Delafield, then attending physician to Roosevelt Hospital, to give the convallaria a trial in cases which should seem appropriate. Convallaria was accordingly employed, under Dr. Delafield's direction, in the medical service of the hospital, almost to the exclusion of digitalis, in cases needing a heart tonic, from the middle of September, 1882, to the end of November. The cases in which the convallaria was employed were:

First.—Cases of Bright's disease where the circulation seemed at fault. Six cases.

Second.—Cases of deficient circulation from organic cardiac disease. Five cases.

Third.—Cases of heart failure from pneumonia in old people. Two cases.

Fourth.—Cases of heart failure in typhoid fever. Five cases.

Fifth.—Two cases of emphysema and bronchitis (one of them with asthma) where the pulmonary condition offered an obstruction to the circulation.

These are all the cases in which convallaria was tried during the period mentioned, with the exception of five, where, for various reasons, only a few doses were given.

The preparation used was the fluid extract of the flowers, furnished by Messrs. Parke, Davis & Co., except from the period from October 5th to October 7th, when a specimen procured from Eimer & Amend was employed. It may be proper to state here that, so far as I know, Parke, Davis & Co.'s preparation is as yet the only reliable one furnished in this country, and I am informed that their material is nearly or quite exhausted, and cannot be replenished until a new stock is collected next season.*

The dose employed in these experiments varied from ♏ v. t. i. d. to ♏ xx. q. 4 h., and in two cases (4 and 11) ʒ j. t. i. d., was given with good results, where smaller doseage failed. I think I would have had better success in several instances if I had run the dose up higher than I did. In no case were any toxic symptoms observed. Vomiting was much less frequent than in patients under fairly large doses of digitalis, and could hardly be traced to the convallaria in a single instance, as it only occurred where symptoms of chronic gastric congestion or inflammation were marked (Cases 1, 5, and 8.) As before mentioned, two patients were kept on ʒ j of the convallaria t. i. d. for several weeks with much benefit and without the slightest toxic symptom.

I will now give a synopsis of the histories of the patients treated with convallaria, leaving for the conclusion a discussion of the results. Temperatures are axillary unless otherwise stated.

Case 1.—*Chronic Bright's disease.*—Cecilia J——, æt. 53; Ireland; widow; domestic. Admitted September 19, 1882. Dyspnœa, palpitation, cough, headache, vomiting, and œdema of legs at times for the last four months. Urgent dyspnœa, last night or two.

Present Condition.—Orthopnœa; pulse weak and irregular; œdema of legs. Physical examination: hypertrophy of heart; no murmurs. Subcrepitant râles bases of both lungs.

Treatment.—Rest in bed. Infusion of digitalis, ʒ j, and acetate of potash, gr. xxx, q. 4 h.

September 20th.—Temperature 103.7° F. Urine, 1,012, alkaline, albumen forty per cent. Feels better. Digitalis and acetate of potash stopped; given convallaria, ♏ij q. h.

September 22d.—Temperature normal since the morning of the 20th. Pulse slower and stronger; breathes easily.

September 24th.—Patient extirely comfortable and able to sit up. Convallaria stopped last evening.

October 17th.—Patient has been getting along very comfortably, except for headache, which is worse to-day, and patient vomits. Ordered convallaria q. 2 h.

*Vide note by Dr. Hurd in The Medical Record, November 11, 1882.

October 21st.—Convallaria discontinued on account of nausea.

October 25th.—Patient went out on pass and did not get fatigued.

November 5th.—Patient very short of breath and nauseated.

November 6th. P. M.—Commencing œdema of lungs. Cupped over chest.

November 7th.—Put on convallaria, ♏ x. q. 4 h. Patient is passing sixty ounces of urine a day, or more.

November 13th.—Amount of urine not increased since the 4th. Patient much more comfortable; convallaria stopped.

November 28th.—Urine, 1,008, alkaline; albumen, trace.

December 12th.—Patient under treatment for prolapsus uteri, no uræmic symptoms. She is very comfortable.

Date.	Pulse.	Respirations.	Urine, ounces.
September 20th, A. M. (Convallaria, ♏ij. q. h.)	104	30	..
September 20th, P. M.	104	38	8*
September 21st, A. M.	92	30	..
September 21st, P. M.	84	24	30
September 22d, A. M.	76	26	..
September 22d, P. M.	80	24	18
September 23d. A. M. (Convallaria, stopped.)	72	26	..
September 23d, P. M.	80	30	44
September 24th, A. M.	72	26	..
September 24th, P. M.	72	17	34*

*The urine is measured from 6 A. M. to 6 P. M. The asterisk, in this and the following tables, denotes that some of the urine of the previous twenty-four hours was lost.

Pulse and respirations kept on this way. Urine increased to sixty or seventy ounces by October 1st.

Date.	Pulse.	Respirations.	Urine, ounces.
October 18th, A. M, (Convallaria, ♏x. q. 4 h.)	84	22	..
October 18th, P. M.	76	24	42
October 19th, A. M.	84	24	..
October 19th, P. M.	72	18	58
October 20th, A. M.	80	22	..
October 20th, P. M.	72	18	50
October 21st, A. M. (Convallaria stopped.)	72	20	..
October 21st, P. M.	76	26	45
October 22d, A. M.	84	28	..
October 22d, P. M.	96	26	38
October 23d, A. M.	80	20	..
October 23d, P. M.	76	24	45
October 24th, A. M.	92	28	..
October 24th, P. M.	72	22	46

Case 2.—*Chronic Bright's Disease.*—Mary A——, æt. 32; Ireland, married; house-work. Admitted September 12, 1882. Has complained of dyspnœa and palpitation for seven years. Slight dry cough last six months. Two weeks ago had a creeping chill and cold sweat, followed by constant vomiting and great pain in epigastrium.

Present Condition.—Pain and tenderness over lower half of sternum. Catching dyspnœa. Poor circulation in extremities. Pulse very small and thready; regular. Pupils not responsive. Pulse, 84; respiration, 26; temperature, 97.5, A. M. Urine, 1,016; acid; albumen, 5 per cent.; no casts found. Physical examination: Prolonged respiration at both apices; some sonorous breathing over right lung. Heart-sounds very weak; no murmur.

September 13th.—Put on milk diet; bicarbonate of soda, gr. x. t. i. d., and tincture of digitalis, ♏x. t. i. d.

September 14th.—Ordered a pearl of amyl nitrite daily.

September 15th.—Tincture of digitalis increased to ♏xv. t. i. d.

September 16th.—Condition about the same as on entrance.

Present medicine stopped; ordered convallaria, ♏xx q. 4 h.

September 19th.—Convallaria ♏xv. q. 4 h. No albumen in urine.

September 22d.—Pulse about the same, though patient feels much better and breathes more easily.

September 23d.—Convallaria stopped.

September 25th.—Patient much better than on entrance. Discharged improved.

Date.	Pulse.	Respirations.	Urine, ounces.
September 12th, A. M.	84	26	..
September 12th, P. M.	56	42	..
September 14th.	...	..	12*
September 15th.	...	..	11
September 16th, A. M. (Convallaria, ♏xx, q. 4 hr.)	80	26	22
September 16th, P. M.	76	18	..
September 17th, A. M.	80	18	10*
September 17th, P. M.	72	22	..
September 18th, A. M.	84	20	20
September 18th, P. M.	104	22	..
September 19th, A. M. (Convallaria, ♏xv. q. 4 hr.)	112	22	Lost.
September 19th, P. M.	104	26	..
September 20th, A. M.	88	22	28
September 20th, P. M.	84	21	..
September 21st, A. M.	80	18	28
September 21st, P. M.	88	20	..
September 22d, A. M.	64	23	40
September 22d, P. M.	100	20	..
September 23d, A. M. (Convallaria, stopped.)	64	20	42
September 23d, P. M	104	16	..
September 24th, A. M.	76	18	34
September 24th, P. M.	108	18	28
September 25th, A. M.			

Case 3.—*Chronic Bright's disease.*—Francis W——, æt. 33; Ireland; married; compositor. Admitted September 25, 1882. Feet and face began to swell four months ago. Eyesight has failed for three months. Occasional attacks of occipital headache. No nausea; no change in quantity of urine.

Present Condition.—Face pale; tongue lightly coated; appetite good; bowels regular; pulse full and regular; face, legs, and genitals œdematous. Pulse, 80; respiration, 18; temperature, 98°, P. M. Urine, 1,015; neutral; albumen, 30 per cent.; casts. Physical examination: Double cardiac inpact and double first sound. Lungs normal.

Treatment.—Milk diet; convallaria, ♏v. four times a day.

September 26th, A. M.—Urine for previous twenty-four hours, sixty-three ounces. Pulse, 80; respiration, 20. P. M.: Pulse, 80; respiraton, 18.

September 27th.—Five general clonic convulsions last evening, between 7 and 11 o'clock. Morphia, chloral and bromide of potassium, p. r. n. Urine, sixteen ounces. A. M.: Pulse, 80; respiration, 18. P. M.: Pulse, 72; respiration, 20.

September 28th.—Patient maniacal; nearly blind; general pruritus.

September 29th.—U. S. solution of morphia, ʒ j, night and morning.

October 1st.—Patient doing well.

October 4th.—Oxygen, gal. v, night and morning.

October 7th.—Patient is up. Pulse goes up to 100° occasionally. Urine has averaged thirty to forty ounces since September 28th; to-day sixty ounces.

October 10th.—Pulse, 84. Convallaria stopped. Put on the syrup of the iodide of iron.

October 16th.—Patient very nervous. Pulse, 120 to-day; it has increased in rapidity since the convallaria was discontinued.

October 17th.—Still very nervous. Ordered ♏j of a one per cent. alcoholic solution of nitro-glycerine, given in ʒ ij water, t. i. d. Urine, 1,010; acid; albumen, 30 per cent.; casts.

October 18th.—Nitro-glycerine made patient dizzy; felt like falling after each dose; had a feeling of a band around the head. Nervousness has disappeared. A. M.: Pulse, 112; respiration, 24. Urine forty-four ounces. P. M.: Pulse, 108; respiration, 22.

October 20th.—At own request discharged improved.

Case 4.—*Chronic Bright's disease—Cirrhosis of liver.*—Isabella McG——, æt. 40; Ireland; married. Admitted October 27, 1882. Well up to December, 1881; after that had nausea and vomiting for two months. Swelling of feet and legs since May, and of abdomen since June. Since then urine has been diminished. No headache.

Present Condition.—Very pale; face puffy; bowels regular; appetite poor; pulse weak; œdema of legs and ascites. Pulse, 116; respiration, 24; temperature, 98.5°. Urine, 1,012; acid; albumen, 60 per cent.; granular, fatty, and hyaline casts; pus and blood. Physical examination: heart and lungs negative; liver dullness diminished; fluctuation over abdomen.

Treatment.—Pot. acetat., ʒ ss.; inf. trictic. repent. O. j. Sig., ʒ ij q. 2 h. Rest in bed; bowels kept open.

October 30th.—Abdomen measures forty-one inches.

November 1st.—Acetate and triticum stopped.

November 6th.—Patient about the same. Put on fluid extract convallaria, ♏ x. q. 4 h.

November 9th.—Nausea and sleeplessness.

November 13th.—Abdomen forty-one inches. Convallaria, ♏ xx. q. 4 h.

November 17th.—Convallaria, ʒ j t. i. d.

November 20th.—Abdomen forty inches. Feels better and passes more urine. Has a uterine fibroid size of child's or larger.

December 12th.—Still on convallaria, ʒ j t. i. d. Averages about thirty ounces of urine daily. Urine to-day, 1,016; acid; albumen, 60 per cent.; casts as before. Up and about and comfortable. Urine was measured daily since entrance. Up to November 15th, the daily average was about fifteen ounces, never over twenty; after this as follows:

Date.	Urine, ounces.
November 15th	22
November 16th	24*
November 17th	30
November 18th	18
November 19th	17
November 20th	32
November 21st	34
November 22d	17
November 23d	32
November 24th	36
November 25th	34
November 26th	30

Case 5.—*Phthisis—Chronic Bright's Disease.*—Ella W——, æt. 40; United States; widow; dressmaker. Admitted July 10, 1882. Hæmoptysis two years ago. Cough for a year. Œdema of feet and legs and dyspnœa off and on for seven months. Now has anasarca below waist and œdema of right arm, dyspnœa and cough. Pulse feeble, 112; respirations, 22; temperature, 97°; urine, 1.020; neutral; albumen, 60 per cent.; granular casts.

Physical examination showed dullness over whole right lung and at left apex. Subcrepitant and coarser râles over both lungs in front and behind. Cavernous breathing at extreme left apex.

This patient went along with periods of comparative comfort, alternating with attacks of increased œdema, partial suppression of urine, dyspnœa, etc. Convallaria, ♏ij–iv q. h., afterward ♏x q. 4 h. was tried for these attacks after September, but they seemed to run about the same course as before. The pulse and urine did not seem to be affected.

Patient died November 14th, in an uræmic attack with suppression of urine; convallaria was given up to ♏v q. h. in ʒ ss of whiskey. Autopsy showed large white kidneys (the two weighed twenty-one ounces) and chronic miliary tuberculosis of lungs.

Case 6.—*Chronic Bright's disease and mitral regurgitation.*—John P——, æt. 55; Ireland, widower; longshoreman. Admitted September 20, 1882. Œdema of legs for two and a half months. Worked up to a month ago, when began to have dyspnœa and feet swelled very much. At times has passed very much, at other times very little, urine for past two months. Constant drinker, never to intoxication.

Present Condition.—Very pale; lower limbs and genitals very œdematous; tongue clean, appetite poor. Pupils contracted and unresponsive. Breathing labored. Facial muscles twitching. Pulse feeble and irregular. Pulse, 100; respiration, 32; temperature, 100°, P. M. Urine, 1,002; acid; albumen, 17 per cent. Physical examination: Mitral systolic murmur; coarse friction râles left side behind; rough breathing on right side.

Treatment.—Milk diet. Rest in bed. Fluid extract convallaria, ♏xv, four times a day.

September 21st, A. M.—Temperature, 98.5°.

September 24th.—Pulse and urine not affected by the drug. Œdema of lower limbs and dyspnœa marked.

September 25th.—Convallaria stopped; put on pot. iod., gr. x t. i. d.

September 27th.—Iodide reduced to gr. v t. i. d.

September 28th.—Patient very stupid. Pulse, 100–108 since entrance. Urine passed mostly in bed; about fifteen ounces daily measured.

October 2d.—Patient unconscious.

October 4th.—Died 2:30 A. M.

Autopsy by Dr. Delafield.—Large white kidneys. The two weighed sixteen ounces. Mitral insufficiency; small vegetations on aortic valve; cardiac muscle yellow, as if fatty.

Case 7.—*Mitral regurgitation.*—Mary McG——, æt. 50; Ireland; single; domestic. Admitted September 19, 1882, for the third time. Patient has had symptoms of cardiac disease for over three years. For a year has had dyspnœa and for eight months œdema of legs, off and on. Urine diminished at times. Present attack of œdema, dyspnœa, etc, has lasted several weeks. Is already getting better of it.

Present Condition.—Tongue clean, appetite good. bowels regular. Urine passed in fair amount. Pulse feeble, irregular and intermittent. Pupils normal, moderate dyspnœa. Pulse, 116; respiration, 38; temperature, 98.2°, P. M. Urine, 1,018; acid; no albumen; urine contained albumen last May. Physical examination: Mitral systolic murmur. Some cardiac enlargment.

Treatment.—Convallaria, ♏x t i. d Rest in bed.

September 23d.—Patient's feet less swollen; sat up to-day.

September 24th.—Patient now has no dyspnœa and sleeps well.

September 25th.—Patient feels fairly well. Discharged improved.

This attack rather milder than previous ones, when patient recovered on digitalis.

Date.	Pulse.	Respirations.	Urine, ounces.
September 19th, P. M.	116	38	..
September 20th, A. M.	104	36	10
September 21st	...	..	29
September 22d, A. M.	112	52	..
September 22d, P. M.	84	30	18
September 23d, A. M.	96	36	..
September 23d, P. M.	92	28	20
September 24th, A. M.	84	30	..
September 24th, P. M.	88	32	16*
September 25th, A. M.	88	20	20

—Henry Ling Taylor, M. D., Late House Physician, Roosevelt Hospital, in *The Medical Record*, January 27, 1883.

Viburnum Prunifolium.—In the August number of the Gazette I noticed a communication from Dr. W. S. Gilmore upon the dangers of the indiscriminate use of this drug, and having had a similar experience I deem it to be in the line of duty to record it. Next to ergot I place more dependence upon viburnum in the treatment of diseases of females than any other agent for internal administration. Its action is not limited to the prevention of miscarriage by any means, but it is alike applicable in cases of uterine engorgement, ovarian irritation and the numerous conditions of the female sexual organs. Before reading Dr. Gilmore's article I had noticed in three or four cases that my patient had slight dimness of vision, impediment of speech, dizziness, dryness of the mouth and throat, and at times an unsteady gait, towards the end of my treatment of the cases, when the patients were nearly or quite well of their uterine troubles. I attributed these to general weakness, or, at least, some cause other than the use of viburnum; hence I gave these symptoms less attention than I otherwise would, the patient recovering promptly from them. I now know they recovered upon my discontinuing the viburnum, a fact that then escaped my notice, as the medicine was discontinued at or near the time of the patients' recovery from their uterine disease. But at the time I read the doctor's article in the Gazette I was sorely perplexed to account for certain symptoms in a young lady patient then under my treatment. The case was that of a lady twenty-six years old, unmarried, and a school teacher by occupation. She had been sent to me by Dr. McNabb, of Newaygo, this state, to be treated for retroversion of the uterus; it was an aggravated case, the patient having been bed-ridden for two years, and suffering with all the neuroses usually found in such cases. There was tenderness along the spine, ovarian neuralgia, pain in the top of the head, with excessive trembling upon the slightest excitement. These tremblings would be brought on by a person speaking to her suddenly, or by a stranger entering the room, shutting of a door, etc.; this symptom was so bad at first that I found it almost impossible to make a vaginal inspection. I commenced treatment by replacing the uterus and holding it in position for the first three days with cotton tampons saturated with glycerine; these I changed every day and at the time of changing gave her gallon injections of hot water at 100° F. to reduce the cervicitis; after this time I adjusted a soft rubber and silver wire pessary, which held the uterus in place nicely, but continued the hot injections while the pessary was still in situ. In addition to this I gave internally fluid extract black haw and ergot, equal quantities, a teaspoonful each in four hours; also, bromide of ammonium in ten grain doses three times a day. This medication was continued uninterruptedly for three weeks, when she had almost entirely recovered from her nervous troubles and was able to walk three or four blocks, besides riding for an hour each day (pretty good results, considering she was brought to the city on a bed). At about this time she commenced to complain of a dizzy feeling in the head, dryness of the mouth and the throat, spells of difficult breathing, pain in the eye-balls, and an inability to complete her sentences; when speaking her voice was indistinct, and she would stop in the middle of a sentence and then commence upon another subject entirely foreign to the one she was talking about. To this was added an unsteady gait quite similar to locomotor ataxy, for when she arose from a chair it was with the head thrown partly backwards and the eyes fixed upon the wall opposite; in this position she would slowly rise to her feet and walk off unsteadily with the head in the same attitude as when rising. Twice she fell down while walking, but did not entirely lose consciousness She expressed her feelings by saying her legs gave out and she was going to fall. I began to think that perhaps I had made a mistake in diagnosis, and that her nervous troubles did not depend entirely upon her uterine disease, but perhaps on organic disease of the spinal cord and brain instead. When I read Dr. Gilmore's article, the similarity of the symptoms detailed by him and those of my patient led me to suspect that the black haw might have something to do with the condition of this patient, and I determined to leave it off. I did so, but continued the bromide of ammonium, and in two days, to my great surprise, every one of the unpleasant symptoms had vanished, and the patient continued uninterruptedly to recover, being able at the end of ten days to leave the city for her home. She has steadily improved, and now enjoys her former good health. A case as striking as this in connection with the others preceding it, and those reported by Dr. Gilmore, has quite naturally, I think, led me to believe that viburnum has other properties than those ascribed to it; and while it is an excellent remedy for the diseases above mentioned, it is by no means harmless or devoid of danger, but, on the contrary, is capable of producing dangerous results, and should be given with circumspection, discontinuing it upon the first symptoms of dryness in the mouth and throat. The bad results obtained by Dr. Gilmore came on much sooner than in my case; his patient complained of the dizziness, and the dryness in the throat upon the second day, but that is doubtless accounted for by the fact that she took it every half hour in one-half to three-fourth teaspoonful doses, while my patient only took it once in four hours and then only in one-half teaspoonful doses. My other cases, however, were affected sooner I believe, though I cannot tell now just how they had taken the drug. I shall in the future carefully watch its action, and I think others will do well to do so.—Dr. E. O. Herrick, in *Obstetric Gazette.*

New Drugs.—Foremost amongst these must be mentioned one that is not by any means new, but one the recent revival of which has become so widely spread that the literature relating to it, that has appeared during the past year only, would fill many volumes. We refer to iodoform. First discovered about the year 1823, its virtues were hidden till but a very few years ago, when Mosetig and others began to employ and praise it. It has grown so rapidly into favor that it is now made use of in the most varied diseases—from syphilis and tubercle to ulcer of the stomach and diabetes, eye affections, and decayed teeth. Hoffer has written on its action on blood corpuscles; Mock on iodoform in tuberculosis; Scherr and Benzan on iodoform in diphtheria; Deutschmann, Schindler and Grossmann on iodoform in eye diseases; Binz on the emigration of white blood corpuscles during iodoform administration; Neumann and Thomann on iodoform injections in syphilis. The list of authors who have written about the drug would be tedious to read. Certainly no one therapeutic agent has received so much attention during the past year as iodoform.

Convallaria Majalis is a remedy that for generations has been in repute in Russia, but has only recently been subjected to scientific scrutiny. MM. Germain Sée and Deplats, the former especially, have laid the profession under obligations to them by investigating the powers of the drug. It seems to have an action almost identical with that of digitalis —may be given in doses of from one gramme to a gramme and a half daily in the form of aqueous extract of the whole plant. Its diuretic action is spoken of as being certain and pronounced in all cases of cardiac dropsy, less so in dropsy depending on kidney disease, and *nil* when the cause lies in the liver.

Paraldehyd.—V. Cervello has been studying the action of this preparation, and according to his report published in the Archiv für exper-Pathologie und Pharmakologie, it is likely to prove a useful addition to our materia medica. It is a modification of aldehyd, is a colorless fluid that boils at 124° C., and is soluble in eight parts of water at 13° C. Paraldehyd diminishes cutaneous sensibility, but reflex irritability remains intact even in hypnotic doses, but not in doses

that are fatal. Injected subcutaneously it causes pain, but produces the same effects as if absorbed through the stomach. The dose is three times that of chloral hydrate.

Adonis Vernalis.—The active principle of this plant has been obtained also by Cervello and experimented upon. He found its action to be similar to that of digitaline, but that the dose required was much smaller. In rabbits and dogs the blood pressure always rises under its influence. He does not appear to have tried its effects on human beings.

Guachamaca.—Portions of the guachamaca plant were supposed to be first brought to Europe by Dr. Karl Sachs on his return from Venezuela, in which country the most wonderful stories are told concerning its virtues. It is not mentioned by A. v. Humboldt, whence it is concluded that it was not, at the time the distinguished traveler was there, known medicinally. Herr Schiffer, of Berlin, has been studying its effects, and brought them before the notice of the Society of Physicians of Berlin last spring. It acts very much like curare, in allaying spasm, and in large doses causing a general paresis. The juice taken from the plant in the rainy season makes the most powerful extract. If ten mgrm. of the extract are given to a frog, an interval of fifteen to eighteen minutes passes before any effect is noticed. After this period, however, the action is rapid. The animal becomes stupid, allows the head to fall, permits itself to be laid on its back, and does not draw back the leg if extended, etc. So far its action is exactly similar to that of curare; but now comes the difference. The respiration continues, the circulation and cardiac activity are undisturbed. Its effect was tried on a young man in Frerich's Klinik who was suffering from cramps. Ten mgrm. of the extract were injected, but for three quarters of an hour no effect was observed. The patient then, in broad daylight, suddenly fell into a rather deep sleep, which lasted for nearly three hours; respiration and circulation were undisturbed. Schiffer believes that in guachamaca we have an agent capable of combating disorder of the motory apparatus, as well as a useful hypnotic.—*The Medical Press and Circular*, December 27, 1882.

Gelsemium Sempervirens in Tetanus.—Dear Sir: Two years ago my friend and kinsman, Dr. John B. Read, of Tuscaloosa, Alabama, sent me the enclosed report of a case of tetanus cured by gelsemium extract, with the request to publish it in some New York medical journal. The report was mislaid, and came to light only a few days ago. I think it of much importance, and hope you will find a corner for it in the British Medical Journal, and oblige, yours truly, J. Marion Sims. December 2d, 1882.

The above letter has been forwarded to us by Dr. Marion Sims, with the following report:

Early in September, 1880, I was called to see a strong, healthy mulatto woman, 20 years old, who was suffering from well marked tetanic convulsions, caused by a broken bit of glass on which she had trodden two days previously, and which was embedded in her heel.

I administered chloroform to enlarge the wound and search for the broken glass. It was impossible to anæsthetize her profoundly, and her foot was forcibly held by strong assistants while I made free incisions, but failed to find the fragment of glass. The wound was then filled with morphia, and a common poultice applied; and a cathartic was given, which acted promptly.

Knowing well the inefficiency of chloroform, chloral and opiates in tetanus, I determined to try the effect of the gelsemium sempervirens, because of its well known power of relaxing all voluntary muscles. I therefore ordered twenty minims of fluid extract of gelsemium every two hours, alternating with the same quantity of liquor potassa at the same intervals. There was great difficulty in deglutition; but milk and soups were taken in small quantities frequently.

On the morning of the second day there was a slight improvement in the rigidity of the jaw, and the general spasms occurred only every three or four hours. But, as the day advanced, the jaw became more rigid, and there were violent and painful contractions of the muscles on the front and back of the chest. The general spasms also became more frequent, and sometimes occurred during sleep.

The dose of gelsemium extract was then increased to forty minims every two hours. During the third day there was a marked improvement in both tonic and clonic spasms; the medicine was continued in forty-minim doses. By the close of the fourth day, the rigidity of the jaws was almost entirely relieved, and the general spasms recurred at longer intervals and with diminished violence. After this period the improvement was rapid and regular, and the dose of gelsemium was reduced to twenty minims, at which it was continued till full convalescence. No remedy of any potency was used after the first six hours but the gelsemium, and there can hardly be a doubt that the cure was the result of its use. The extract was fresh, and was given for a week in amounts closely approximating half an ounce to an ounce every twenty-four hours; it produced no other sensible effect than that of controlling the spasms and arresting the disease. There was no dizziness, no dimness of sight, no double vision, and no prostration of strength, as I have seen in other patients with other diseases from much smaller doses of the same preparation.

So far as I am aware, this is the only instance in the records of medicine of the use of gelsemium in the treatment of tetanus, and the result here is certainly encouraging.

As the gelsemium exerts such powerful control over spasms of the voluntary muscles, I would advise its use in hydrophobia, and I would suggest that it be used hypodermically, whether in tetanus or in hydrophobia.—John B. Read, M., D., in the *British Medical Journal.*

Adonis Vernalis, Curara. *Adonis Vernalis.*—In Russia the adonis vernalisis a popular remedy in cases of dropsy and heartdisease. Experiments on its value have been madein the wards of Botkin, at St. Petersburgh, the results of which have been described by Dr. Bubnow in a graduation thesis. Under its influence, in cases of dropsy the cardiac contractions increased in force, the pulse became less frequent, more regular, and fuller, the urinary secretion increased from 200 to 2000 or 3000 cubic centimetres, and albumen and casts disappeared from the urine. Experiments made on both cold-blooded and warm-blooded animals with different preparations of adonis (infusion, and both aqueous and alcoholic extracts) showed that its action is to stimulate both the inhibitory apparatus and motor ganglia of the heart, to increase the contractility of the cardiac muscle, and to cause the contraction of the small arteries in different parts of the organism, without affecting the vaso-motor centre. Dr. Bubnow believes that adonis is positively preferable to digitalis in cases of organic heart disease; and he finds that, like the convallaria majalis, it is not cumulative in its action. A glucoside "adonidine," containing the active principle of adonis, has been isolated by Cervello (Archiv. für Exp. Path. und Pharmak., 1882, p. 335). It is an amorphous, colorless substance, destitute of odor, of a bitter taste, soluble in alcohol, and feebly soluble in ether and water. Tannic acid precipitates it from its solutions, and the precipitate redissolves in an excess of water. When heated in contact with an acid, sugar is set free, and also another substance, soluble in ether. The effects on animals are apparently identical with those of digitalin.

Curara.—It is known that curara may cause slight symptoms of excitation before the paralysis comes on. M. Couty has succeeded in isolating these

symptoms by employing feeble extracts of strychnos triplinervia, or small doses of certain native preparations. By these means, in dogs, a new phase of intoxication may be presented for ten or even twenty minutes. In the first instance the animal is agitated, jumping, scratching, barking, as if in a state of general hyperæsthesia. Then it presents half choreic shocks or tremors; the pupils dilate, and are alternately dilated and contracted. The heart's action is increased or diminished in frequency; sometimes there is vomiting, micturition, or defecation; and there is always salivation. Finally, the central and peripheral temperature are raised, and the excitability of the muscles and nerves becomes highly increased. With the native preparation of curara it is impossible to prolong this stage, and symptoms of paralysis soon become associated with those of excitement. The choreic shocks were found to be arrested by section of the sciatic nerve. Other experiments proved that the spasms originated from the spinal cord, and were influenced by its preceding functional condition. If the cord was tied in the mid-dorsal region, and the curara injected, the spasms were still produced in the hind legs; but if, after the operation, the excitability of the posterior segment became lowered, the spasm was no longer produced in the hind legs. This dependence on a perfect functional activity is a point of difference of these spasms from those produced by strychnine and by asphyxia. The action of small doses of curara is not, however, limited to the spinal cord. The diminished frequency of the heart continues after section of the pneumogastrics, and will even occur if the pneumogastrics have been previously divided. From these facts it seems that curara must not be regarded as entirely destitute of a "convulsivant" action, nor of an action on the central nervous system.—*The* (*London, Eng.*) *Lancet.*

The New Heart Tonic, Convallaria.—Within the last few months articles have appeared in many medical journals which have attracted renewed attention to the convallaria majalis, the lily of the valley, and especially to its use as a cardiac tonic in the place of digitalis. It is claimed that it acts, like this drug, upon the end-organs of the vagi, and the ganglia in the heart, but has the positive advantage of being less irritating in the stomach. The investigations of Walz, in 1859, however, showed that it has decided purgative properties, and one of the constituents, convallamarin, is both a systemic and direct emetic; like other emetics, this active principle exerts a decided influence upon the heart.

More recently, Prof. Desplas,* of Lille, having used the remedy in cases of weak heart with and without organic disease, in albuminuric dropsy, and in cases of hepatic disorder, reports that the results were almost always satisfactory; in several of the heart cases they were remarkably so; in the others they were doubtful or *nil.* The action of the drug, he claims, is directed principally to the heart and the kidneys. It is believed that among those suffering with mitral insufficiency, or stenosis with its attendant disorders, dys-systolie, visceral stases and hydropsy, that the lily of the valley administered in the form of the extract, in doses of from 1 gr. to 1.50 gr. (15 to 22 grains) slows the cardiac contractions, makes them more regular, increases their energy, and in the space of two or three days provokes an abundant diuresis, which relieves these congestions and effusions. The diuretic action is manifested to a much less degree in cases of Bright's disease, and in some other diseases not at all.

The convallaria, however, should not be continued for any length of time, as at the end of eight or ten days the cardiac energy, in place of increasing, diminishes, and there is danger ot heart failure, from the toxic effect of the drug.

As regards the constituents of convallaria, according to Langlebert, the active principles of this remedy reside in (1) a glucoside convallamarin, and (2) an alkaloid, majalin. In addition to these, the plant is said to contain convallarin (another glucoside), and an acid named majalic acid. The aqueous extract of the flowers and stalks, with the roots and leaves (in the proportion of 3 to 11), is the most powerful preparation.

Tanret* advises the use of convallmarin, on account of its uniform strength, in place of the extract, which varies with the season and mode of preparation. This glucoside is soluble in water and alcohol, though not in chloroform or ether.

From a few experiments made in this city the remedy has been found to be a heart tonic, though less actively so than digitalis; like digitalis, it is decidedly diuretic. It is well borne by the digestive tract, and in cases where digitalis is inadmissible, may prove valuable as a substitute.—*College and Clinical Record*, January, 1883.

*Revue de Thêrapeutique, No. 23.

Cascara (Rhamnus Purshiana) as a Laxative.—Dr. Carter, of Liverpool, in an article on new therapeutic agents, writes to the follow effect:—The fluid extract prepared from the bark of this shrub, or small tree, by Parke, Davis & Co., of Detroit, is an excellent remedy in chronic constipation. I have used it now for two years, and have no doubt of its value. I particularize the preparation of Parke, Davis & Co., in justice alike to those gentlemen, of whom it is right that I should say I know nothing except from an experience of the genuineness of their preparations, and to medical men who may feel inclined to prescribe the remedy. My reason for making what may seem an invidious selection is that a prescription made up apparently with a different preparation proved inert. First of all, however, it may be well to give a short account of the properties and action of the drug. The fluid extract is reddish-brown in color, and extremely bitter. A very good method of prescribing it is in a mixture, with twice its quantity of glycerine, or one of the flavored syrups. Of this, a fluidrachm should be given three times a day, and the dose be diminished as soon as its aperient action is developed. It is what may be termed a tonic aperient, and seems to produce an effect somewhat like that caused by belladonna and nux vomica united with an ordinary aperient. It evacuates the whole canal. The motion is not watery, but usually semi-solid, truly feculent in character, and voided without difficulty, and so far from causing subsequent constipation, the bowels will often act regularly after its use has been entirely discontinued. I have used it so extensively, and the testimony to its value is so unmistakable, that it would be difficult to select particular cases to prove this. The following, however, is fairly illustrative of the method of its action:—A young man, admitted to hospital suffering from bronchitis, was also the subject of chronic and severe constipation, which was a source of great trouble to him. Twenty minims of the fluid extract, with forty of glycerine, were ordered three times daily. This not acting, the dose was doubled on the following day. Five soft semi-solid motions were caused. The dose was immediately reduced to twenty minims. The bowels then acted three times. Again the dose was halved. In a day or two it was necessary to give the smaller dose twice a day, and two days later, once a day only. Shortly afterwards, its use was discontinued, the bowels continuing to act regularly during the remainder of his stay in hospital.—*Liverpool Med. Chir. Journ.*, July, 1882.

Garrya Folia Fremontii. (*California Fever Bush.*)—Having recently devoted considerable time to the clinical study of various new antiperiodics, recently introduced to the notice of the profession, I wish to call attention more especially to the virtues of the California fever bush (Garrya). Although not prop-

*Bull. de Thêrapeut., Aug. 30.

erly a new remedy (as it has been employed as such by Californians for more than thirty years) yet its therapeutic properties are of so valuable a nature that it should be more generally known.

In this intensely malarial district (the South Arkansas river bottom) the fevers are of a malignancy equal to any in the known world, not excepting the Deccan, the Madras Presidency, or the Gold Coast of Africa.

This season, being an unusually rainy one, has developed more malarial fevers, and of graver types, than for many summers precedent. Scarcely a family, black or white, has escaped serious illness. Congestion of stomach and bowels in the adult and of brain and spinal cord in children, obtained in greater or less degree, in all cases. In nine out of ten cases of children under five years old clonic convulsions would occur within two or three hours after the inception of the fever, and unless early and active treatment was instituted, a fatal result ensued. Ordinarily the convulsions were controlled by 20 to 40 minim doses of chloroform in olive oil, repeated every ten or fifteen minutes, and at the same time three or four grains of ipecacuanha, until complete relaxation was obtained. Calomel and blue powder, three or four doses, at intervals of three or four hours, and, as indicated, veratum, aconite, gelsemium, cold affusion with tepid sponging; and as soon as the first indications of a remission were perceptible, large doses of equal parts of quinine and cinchonidia with mono-bromate of camphor, were given every hour for several doses, and then at longer intervals. Under this treatment cases recovered in three or four days, but after I commenced using the garrya in addition to the above remedies, the duration of the fever was shortened about one-half. I gave to children of five years, fluid extract garrya, 20 to 30 drops every two hours, in warm syrup of horehound, when the fever was high, and at longer intervals during the remission. In several cases, both of adults and children, after exhausting every other remedy without benefit, within twelve hours after commencing the use of garrya the fever would terminate, usually attended by profuse perspiration. No unpleasant symptoms were noticed attributable to the medicine.—J. B. Garrison, M. D., in the *Western Medical Reporter.*

Plantain as a Styptic.—An old styptic, mentioned by Shakespeare and recommended by various writers, from Pliny to Culpepper, plantain has been almost entirely overlooked by modern writers on therapeutics. Professor Quinlan, of Dublin, found it in use as a popular remedy in a remote district in Ireland, and has tried it extensively with the best results in cases of internal hemorrhage suited to the use of styptics. In cases of internal bleeding from the lungs, the kidneys, the bowels, and in menorrhagia he has got fair results from large and repeated doses of the juice, either fresh or fortified with alchohol or glycerine. At the recent meeting of the British Pharmaceutical Conference, at which these results were mentioned, he exhibited a number of specimens —(1) dried leaves, (2) a mixture of powdered leaves and glycerine, (3) the juice with sufficient alchohol to keep it from spoiling, (4) the juice mixed with glycerine, and (5) a green extract. With the last he has not yet obtained satisfactory results. The powdered leaves alone, or mixed with glycerine, may be employed, the latter being intended to imitate the popular preparation, which is made by chewing the leaves. Chemically it does not contain tannin, and is compatible with salts of iron, alkaloids, other metallic salts, and preparations of ergot. Observations on the vessels in the tail of gold fish show that the application does not influence the circulation in the larger vessels, but great retardation occurs in the capillaries.—*Lancet*, Nov. 25, 1882.

Caffeine in Heart Disease.—Caffeine has been largely employed as a diuretic but it has been little used for its action on the heart. Lépine asserts that it is capable of producing the same effects as digitalis, over which, in some cases, it has decided advantages. It is, however, necessary to employ it in large doses, from sixty centigrammes to two grammes per day. The effect is more rapid than that of digitalis; in less than 24 hours the pulse will fall from 160 to 100 or 80 per minute; and the force of the heart's contractions is increased in just the same way as with digitalis. Caffeine is, however, better borne, and seems to be eliminated more rapidly than digitalis. Among its inconveniences, however, are the occasional production of insomnia, and a nervous condition which renders it necessary to suspend it. M. Lépine has never given it for more than ten days. Another objection is its very high price. A Paris physician, M. Huchard, has also praised it very highly in the same cases, and in similar doses, especially for its diuretic effect. Coffee is, it may be noted, and old remedy. Zwinger recommended it in 1725, for dropsy, and Honoré in 1846 for albuminuria.—*Lancet*, Nov. 25, 1882.

Smartweed as an Emmenagogue.—The Medical News, in a recent editorial, directs attention to the emmenagogue properties of the Polygonum Hydropiperoides. As an emmenagogue it is indicated in states of anæmia, functional torpor of the ovaries and uterus due to systemic depression, and is contraindicated in the condition of plethora. Its power to stimulate the uterine circulation renders it useful in menorrhagia, and in metrorrhagia due to relaxation of the uterine vessels. Subinvolution of the passive kind with a sluggish circulation, cold hands and feet, and general depression, are also benefited by this remedy. The best form for administration is the fluid extract in 5 to 30 minim doses, mixed with glycerine and wine, 3 or 4 times a day.—*Canadian Practitioner.*

Naphthalin in Scabies.—Naphthalin was first employed in scabies by Kaposi, its value being suggested by the use which furriers make of it as an insecticide. It has been further used in the treatment of sixty cases of this disease by Fürbringer, who reports that it is most successful. It is employed in a 10 or 20 per cent. solution in oil. In one case it caused a slight and very transient albuminuria. Although the parasitic affection was quickly cured, naphthalin seems to have no influence on the secondary eruptions, which, in some cases of irritable skin seem to be augmented by it. In other skin diseases, especially those in which large surfaces are exposed, naphthalin is to be avoided. Fürbringer treated a case of psoriasis with a daily application of five to ten grammes of the above solution without benefit to the skin eruption, and with the result of causing a nephritic albuminuria. Neither in chronic eczema, nor in tinea tonsurans, did it do good.—*Lancet*, Nov. 25, 1882.

Kava-Kava.—Kava-kava, well known to travelers as the intoxicating drink of the Fijians, has lately been introduced as a cure for urethritis and gonorrhœa. From my own observations, I find that its chief action is to reduce the acidity of the urine, and it may be given with benefit in cases where there is an uric acid diathesis. I have found it very useful in enlarged prostate, as it has a very beneficial action on the mucous membrane of the bladder, and prevents any uneasiness which may occur during the temporary retention of the urine.—*British Medical Journal.*

Asclepias Curassavica.—Dr. Guim, Aroes, Rio Janeiro (Union Medico), has been investigating the physiological properties of bastard ipecacuanha (asclepias curassavica) and has found that its active principle is a cardiac poison, somewhat similar to digitalis. It is an excitant of the vaso-motor center. The solutions obtained by maceration of the stalks, and that obtained in like manner from the roots, act with unequal intensity.—*The Druggist.*